

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|------|
| tgcaggcctg | attcctgac | cttattctgt | gctcagcaaa | cgtctattga | ctgacaagtc | 6600 |
| tgaaccaga | cagtcacatg | actgggctga | gggtgggccc | ggccagtga | ccttgccagg | 6660 |
| ctgggctggg | tagtgctcagg | ggtgcagcaa | gtacctgact | ggccctgggc | ccagggtggg | 6720 |
| tcagcagggc | ccacgctgga | ctggaggggc | cctcggcggg | cccggccatg | gaaaccaagg | 6780 |
| ctgggactgt | tcttggtctt | gccctgcccc | ccagggaagg | ggactgcagg | gctggccaga | 6840 |
| ggctccagac | tcttggtgat | cttgaggtgg | ccaatgccat | tgactgaaag | accccaggac | 6900 |
| ttggctctga | tggtggtgac | tggcagaagg | | | | 6930 |

<210> 12034
 <211> 6930
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|-------------|
| <400> 12034 | |
| tcagatacaa | agcagtattt |
| gaacatttcg | gggacaggaa |
| gagtcagagt | tggcacatga |
| gaagtagggg | gcgctctatg |
| atttgactg | ggaggcccta |
| caggaacaaa | cgccaaagga |
| gggacagggc | caagacactc |
| ggcccactta | ccttccctga |
| ttgacccct | caagcagctt |
| ctccccaggc | ttggaaacag |
| tgggctccat | ggggcagtg |
| agaacatgaa | ccccattga |
| gttttaaggc | atagggagga |
| gctcagcccc | tgcatgggtt |
| gagggggctg | ggagcaagct |
| gaggacaagt | gctttgagat |
| aaggcctcca | ctatagaaag |
| caaggcctgc | ttcccaaaga |
| cccattttctg | gacccatggc |
| ggatgtagcc | tcggaatgca |
| caacttcttc | cctaaccag |
| ctgggagggg | tcagagtcag |
| ctctgagctt | tctagctcca |
| aattacttca | ttaataacag |
| gctgcttgag | ggattctctg |
| gagctccaga | cgctcccagg |
| aggggaatttc | ctcttccctg |
| ggccccctact | ggttcaggcc |
| cttaaggcac | aaagtcagtt |
| ttcttgggag | ccaagccctc |
| aagtccgagt | ctggcgtaac |
| ggaacagctt | taagggggag |
| tctcttaggg | ctggatccga |
| aaagggttgg | ctccagcttc |
| ggccacaggg | ttcccccttc |
| gaaagaggta | aactgggtct |
| agtctctggc | tctcaggttc |
| cagtgtgaag | acttccagtt |
| ctgcagcggg | ctccagtgta |
| tggtccctgg | tgtggtgctg |
| aagtggtagt | ctgtggctgg |
| gtggaaggcg | agtgggaagg |
| ctgacattgc | ttgacactgt |
| tcaagcccca | cgctgcagac |
| tcaccagcag | tgccacccgg |
| gccaccgggtg | agaggtgccc |
| ttatatatgt | atatttactt |
| ttccctcact | gcccacctca |
| aagaactggg | agttaactgg |
| cttctaagg | tgacaggtat |
| ggagattagc | ccagtgacta |
| acctgctgga | cccaggggca |
| gctggcagct | tccagcaggt |
| aaggcaactt | tgggtccaagg |
| actcctgcac | tgaggaaccc |
| ggggctgtgc | tgtgtccaga |
| gactgagggc | ccgcagttca |
| acatggagtg | gggctcggca |
| acaaagtcac | cataaggaag |
| gtcaacggaa | ccaaattggg |
| cccctgctct | tccctatcct |
| cagttcatag | gcttcaagga |
| aatgagtggt | gggacagggg |
| taccacaggg | caaggacagc |
| aaatgaatac | tacactcctt |
| tgaaggtggc | acttaagata |
| ggatgggtgt | cggaggctcc |
| cacacccttg | ctctggccca |
| ctggtttaag | tgcatttagt |
| ccaccagcca | agaccaggt |
| atgtggtcac | tgatcactgt |
| aataccatct | gggggctcaa |
| tagggcttac | ctggccctact |
| ttcaccaggc | actgagtaga |
| ggcctcggct | gccctgggac |
| gggccacact | taaagcttag |
| actaccaagc | catccccag |
| ctcatggggg | tccaccaag |
| gtgggcaggt | cctctctcca |
| atgggctctg | aacaaatcag |
| cctgaaccag | ccctccaacc |
| ctaggggggtg | gcaggcagga |
| gtgagggggc | accagctgga |
| cgggtagggc | cagtgaacag |
| atccagtggt | gggggggtgc |
| gcagctcagt | cacacaggcg |
| gcctctgaac | tgaggttggc |
| gggggggtgc | gactccctg |
| ctgaccagata | ctgtgcaaac |
| ggtaggtggg | atgccctgc |
| tgaattcacg | gaaggacagg |
| gtcaggacag | actgctgccc |

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|------|
| ttatcccaac | cagcatctct | caccacggcc | gtcgcagtc | tgggggtctgt | ggggagtttt | 2820 |
| atgaaggaaa | aaagcagaga | actttgaaga | gataggaagg | agcatgttct | gctttggcag | 2880 |
| aaggagcaat | ggcagctact | ccatgcagac | cgtgccccgg | actggcaggt | ccacagccac | 2940 |
| ctccacctgg | ccccctgcct | cttcccagtc | ctgttgtgct | gggttccctc | accactatg | 3000 |
| ctctgggcac | atcaaagtat | ttcattagcc | ccatcctcag | tacaatccag | tgacacagtg | 3060 |
| ctgctactag | ccccatcttc | tggatgagga | aactgagcca | cttcctaaaa | atcacacagt | 3120 |
| gtggcaaaat | cacacagctg | ggattcaaac | ccagggtctgt | ctggctgtct | ccctcacagg | 3180 |
| gtggcatgca | gcttggctgc | aggcagcttg | cccactctacc | tgaggctttg | gctgtgcgtc | 3240 |
| tgtgatgtgg | tttcaggccc | gagcaccatg | tctgctgtgt | gtctagctgg | gctctccctc | 3300 |
| tgtcttggac | actgtctctt | ctgcaggggc | acagggtctc | ggcctccctc | agaagcacc | 3360 |
| ccacctctgt | tgcagggtgt | ttctgcacgt | cttttctccc | tcactataga | gtacgttctt | 3420 |
| ggaagtcaaa | acctgtgtct | actccacctc | tctcccctgc | agctaggccc | accagcaca | 3480 |
| gggcctggga | cagatggggc | cccaatcaat | attttctgag | taaacacatg | aatgggcaag | 3540 |
| aaaaaataat | cactacttcc | cttcatttgt | cctgagcgtc | ttctcccatg | gcctcttagg | 3600 |
| ctcaagaaga | aactgggggt | ccatcagccc | cagggacagt | cataacttcc | ggttacctgg | 3660 |
| ccaggaggga | gtccaccatc | cagtttctcc | agaagaggtg | gccaaacatg | gaacctgagg | 3720 |
| ggccctctga | tgtgtacat | ctagctgtgc | cacttcccca | acctgagcat | gaggtcggct | 3780 |
| ccttctctgt | tctgcagaca | cctccagtga | gccacagccc | tccccgccat | gggctcccag | 3840 |
| acacctgcct | gtttccatca | ttgcactcat | ccacattagc | acctgtgatc | tgctgtcttc | 3900 |
| cccacgtctc | cagcacggca | gggctggggg | atgctcagca | gagtgcattg | aacaaacacg | 3960 |
| ggcacgcgtg | ccccctccct | ggacacagag | gcccaggccc | cagagtgtcc | cttgtggaga | 4020 |
| aggctttact | ctataacttc | cagcttctgc | tcttggccca | tttggggggc | cagttgtgcc | 4080 |
| aggagagaag | cagctcgggc | ctggccgggc | cgcagcttcc | cagtcccacc | tacctgggtg | 4140 |
| tcttggtggg | tgtggagact | ctgtggaagg | ctccccctct | cacatgggtc | ctcctttgac | 4200 |
| ctcaggctgc | acagcaccac | agacacgggg | gaggaggagc | tgtagacagg | cccagtttag | 4260 |
| agagaaatga | ggttctagag | tccctcaacc | ccagccccct | cccagccagc | ctgccacacg | 4320 |
| cctctgaatc | tccaccacgc | ctgaaacacc | gcataataac | cagggccctc | gaacaaaacc | 4380 |
| tttcccatcg | accatcccat | gtggtcctca | gcccattgag | ccaggtcatt | tagccagtta | 4440 |
| accacgaagt | aggcaatgaa | gtcagcactt | atcccaccat | gcaggaaata | ccagagactc | 4500 |
| tccggctgtc | ctcagactcg | gctgttctga | ggctctgcgg | gagattctcc | ctggctcccc | 4560 |
| tcttgctctc | cacttcccca | caccggcact | cacttcactc | gcagagtcag | gctgaggtgc | 4620 |
| agtgggggtg | cactgctgac | agggatgtgg | taggtgaagt | tcccaggcct | gcaggggcaa | 4680 |
| aactggcacc | ttagcctgag | ggtaccctgc | caccccccc | ccccaccagg | gactcctcag | 4740 |
| cccccaatct | gtactggagc | cctccagaag | agacagtgtc | caagggtagc | ctggaaaggg | 4800 |
| gctacccttc | cttatggggg | aggctcctcc | ctgaaagggc | aagtctccgg | tgatctgtac | 4860 |
| cacctgggct | catgtcacct | gaggacctcc | ctgggtgagg | ggaggagacc | cagcccacct | 4920 |
| gcaggcatcc | cctggagcac | agtactggga | ggtgatggac | atcgaattct | ccagcacctg | 4980 |
| gatggagggtc | agggagggca | ctggctctgc | aaggagagag | gctgttgggg | caggagtaag | 5040 |
| gtgacaaggc | aggacacaaa | tgagaagtgt | gcaagtcttt | ccttgccaga | cttgaagcag | 5100 |
| tcactcacac | cttagtatga | ataagttcca | ggttattttt | ttccagacct | ccacaattgc | 5160 |
| cagcatcaca | ctacaccctt | tctcagcag | ccctaggact | accagtttcc | catgagcctg | 5220 |
| acgtctgcct | cctcaaaaga | actggaacac | ccagaagtag | ggatgggtct | tcacatcccc | 5280 |
| tgccagggtg | gcaggagccc | gctcgaggcc | tgtgttctct | actgcgggca | tctctcccag | 5340 |
| ttctgggttc | agaaacatca | gttacactgg | tagcttgaag | tcagcagtgt | tgacagcatc | 5400 |
| acacaaatca | ggctccccct | tgccccgagg | ccgatgatta | caccgctacc | agcacgctgc | 5460 |
| tctctgcagc | ctccctgaac | aaaccgactg | caggctggct | ggctgggtag | gggtgggact | 5520 |
| gaagtgtgac | aagtcagatg | ggggagacag | gacttcttgc | tcacttagtt | cacatacagt | 5580 |
| cttgctgtct | cctgactatc | caccagggaa | gggggaagct | ggggccgctg | aacatttgct | 5640 |
| ggacctggta | cgttttcagc | tctgaggcat | gacccaggga | cccaaggacc | ccaacaggat | 5700 |
| ccaggacacc | ctgtgtgggt | aggacaggta | tcagatacag | acgagatgga | agggtgccct | 5760 |
| cccacatccc | ttctggggca | attccaaagg | tcttttaaag | agtcagctca | aatgtcacca | 5820 |
| actccagaga | agttttccct | gatcctcccc | accttcgtcc | ggattaagtg | tcttccccag | 5880 |
| tcccaaagct | acctgcatgt | cccctcagag | cctcatcaca | ctgctgtgtt | ttcatctctg | 5940 |
| tgaggctctt | ggggacaggg | gcgtgtccat | cttcatcacc | cccagtcctc | tgtacagagc | 6000 |
| cagccacaga | gtggcaggca | gctcagtaaa | cagggtgcct | gcaaacatct | ccccattggg | 6060 |
| gttcccccat | cacattgaat | ttccatctct | gtaagccaca | ttttccaggc | tttcttttct | 6120 |
| ttgaagccac | aaaatccatc | agatgaaagt | tgggtgagag | agagctgcct | ggttgaagcc | 6180 |
| aggaagcctc | ccagcctccc | cttcaacccc | cagggcagcc | cccagcgcag | ccccagggtt | 6240 |
| acctcagagg | aaccagtttt | gaaaactaca | ataaaagggt | ctgtagcttt | gttaaaacca | 6300 |
| aagatccaag | gtttgggaaa | tagtagggga | gacccagtat | agcaccctcc | tgggtgctgg | 6360 |
| atggcgaagg | aggagccagg | ctcgggatca | aatacaagcc | ctgcctcgga | ggggctgtat | 6420 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| aaccctgggc | aggtcacttc | accttagtct | ccatcccatt | tcttcagctg | aacaatagga | 6480 |
| acaacaattc | ctttcttgca | ggagtgtgtg | gaggactaaa | tgggatgatc | tacgtaaggc | 6540 |
| tgcaggcctg | attcctgata | cttattctgt | gctcagcaaa | cgtctattga | ctgacaagtc | 6600 |
| tgaaccaga | cagtcacatg | actgggctga | ggtgggccct | ggccagttag | ccttgccagg | 6660 |
| ctgggctggg | tagtgtcagg | ggtgcagcaa | gtacctgact | ggccctgggc | ccaggtgggc | 6720 |
| tcagcagggc | ccacgctgga | ctggaggggc | cctcggcggg | cccggccatg | gaaaccaagg | 6780 |
| ctgggactgt | tcttggcctt | gccctgcccc | ccagggaaag | ggactgcagg | gctggccaga | 6840 |
| ggctccagac | tcttgtgatg | cttggagtgg | ccaatgccat | tgactgaaag | accccaggac | 6900 |
| ttggctctga | tgttggtgac | tggcagaagg | | | | 6930 |

<210> 12035
 <211> 4443
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| <400> 12035 | | | | | | |
| acatttttgg | tactttttaga | atttttattga | cttttttctt | cataacttta | aaacaaaaaac | 60 |
| agcgcatgaa | aaccagtgtc | ttattccaaa | gtctcaactc | agctgattgc | caggtgaaca | 120 |
| tcaccatctt | actcctctga | ataactagac | acaaattaca | tagcaagttc | gagtttctgc | 180 |
| ccaccaaga | cacagccagt | aatcagtcac | aaacacagac | acagccaact | ccaggggctc | 240 |
| cagctttctg | cccatcttct | ctcagcagtt | cctcccatct | gctaagatgc | gccttctctg | 300 |
| tggctctctc | tcaagggtggg | tcaaggctga | acaagacaga | aaagcacagt | ctaggtccac | 360 |
| catcacctcc | cactggccac | cagttggcca | gccaggaaat | catttctgta | catcttttgt | 420 |
| atcccccttt | tatctccctc | tctcttctcc | aaaacttggt | gctatctatc | actttcatgt | 480 |
| aacaatggac | ttagtgtcca | ttaaactgcc | tgagaagtgg | tttgagcctg | acataattttc | 540 |
| ctgagctaaa | aaaggaaaag | tacctctgtg | gccttcttgc | cattaagatc | aagtaaaaaa | 600 |
| gggactagca | ctactgaaaa | gggtcacgct | agaaaagcct | tagaatcctc | tctccacccc | 660 |
| gtgaagggtt | ctctagctgt | agctcttaag | ggtacaagac | ggcaaataat | ctgggggtgaa | 720 |
| ggagggtata | tggggaaaaca | catttatttt | ccccctttaa | acttccctgc | tgccccagtc | 780 |
| tttgcttctc | tcttagtgga | tcccttgggt | tctggctcct | tgcgcttagc | tgaagagagt | 840 |
| gagccgggtc | ccttgaagaa | atcatccagg | cggccctggg | tgctgccttg | gcggctctta | 900 |
| ctcagcctct | tgacccctct | gcggattcgc | tcctcagaga | actgcttttc | accacacatg | 960 |
| aacttgatca | gctcttcttc | atttggtctg | ctccacttca | gctccacaga | ctctgggtcc | 1020 |
| agcacctcag | gttccaagaa | gagctgggtg | gcctccttgt | ggagccaatt | ttctggcaca | 1080 |
| gggtacttgt | tgggggtcaag | tcgccgcacg | atctcctcga | tgctcttggt | cttctgggat | 1140 |
| aggtccacag | cccgttggg | cccaataccc | cggatactct | cacagtatgc | actgcctagc | 1200 |
| aggatgcaca | gatccacaaa | ctgttctctg | ttcaggccca | gctcctgcag | aatccggctc | 1260 |
| agggtggaat | cctggattgg | cagctttttg | gcttccactg | cagtcagggt | tcgcattagc | 1320 |
| acagggctgc | cgaagggtgag | gcagtccatg | tcctcggtag | ccgcagcata | gactttggca | 1380 |
| gccttcacca | gggcagcaca | gctggcctct | gcctcactgg | gtgcatcaag | ataagggtag | 1440 |
| cccatgaggc | tcagcagatg | tttgcaactc | tcattgtgct | gcttagtgac | cttcaccagc | 1500 |
| cgcttagtga | atttttccac | ctcctgctcg | gccccagcag | cctgagcctg | ctgcagctgc | 1560 |
| ttctctgcct | cagcccgcgc | ctcactgcgt | ttggccagct | cgctgactt | gagctgtggc | 1620 |
| ggcttgccat | caaagacata | cacgggcttg | atgccgttct | ccatcatgcg | aatgggtcgg | 1680 |
| tagaacatgc | ccatcagggt | gctgggtggt | tcaccctcct | cattctgcag | cacatcccca | 1740 |
| ccctggcgaa | cagcaatcag | gaactgataa | atgctcatag | aggcatcaat | ggccacctta | 1800 |
| cggccaaagt | agctcttgat | gtcattctcc | cggatggcac | tggggggccac | atcagcaatt | 1860 |
| agtttggtgca | ggccttgaat | tcccatggca | acacagagga | gggatgacta | aaaaagaaaag | 1920 |
| gcaagtcaga | gacggaggaa | aggagaaagg | ttataactgg | tgttatctca | ccaacttcat | 1980 |
| gccttcaact | aaattccaca | caacaaaaag | gacaccatgt | cagcactgct | aaagataaaa | 2040 |
| agatgaacaa | ggtccccatt | ctcaaaaaac | tcagtctagc | aggagaattt | actcaatagt | 2100 |
| aaggctcaac | gagtaccaga | aattgaacca | cgtgcttaga | gaaataagat | actggtgata | 2160 |
| ttctaaggta | gcagcattat | ttattacaca | aaaaaaacct | gcaacatagg | tctccatcaa | 2220 |
| ggaccacaga | aggccaggat | gcttggcctg | gcttgaggag | tccagggacc | ataatggcag | 2280 |
| acctgaaaga | caggcaaata | caccagctaa | acaaacagat | ctgatttggt | ttgagtctct | 2340 |
| ggagaaccct | gactaataag | gcagccttga | aaaaggattg | caaacatata | tgaatggagg | 2400 |
| tgatgtggct | ttctcacaag | cttctctaaa | ctctcttcat | catcgcttca | gcacataaga | 2460 |
| gtttctactt | ttattataat | gttgctagag | tttcaagtct | ttccctttgc | gttttctcgc | 2520 |
| caccactcag | tctgaaatgt | taactccatg | gctcctcccc | aggctctgat | ttaggggtct | 2580 |
| ggcatgctgt | agtcactggg | ctcaaaagag | tattgcactt | cagagttcag | tgtttcccag | 2640 |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| atagcagtgt | ttcccaaatc | accctcacga | tttttgctac | ttccaactaa | aaccgcgtact | 2700 |
| ttcattcact | tagaattttt | tttaaaaaaac | taaactggaa | aactcataag | caataaatatt | 2760 |
| tgtgttctat | tagttatatt | ttaatatgta | ttaaatgtat | aactattaag | aaggatttttt | 2820 |
| agggggtgca | atttaaaatc | atcttgccat | cctggccaac | acgggtgaaac | cctgtctctta | 2880 |
| ctaaaaatac | aaaaaaaaaa | aaaattagct | gggtgtgggt | gtgtgcacct | gtaatcccag | 2940 |
| ctactcgggg | ggctgaggca | ggagaatcgc | ttgaaccag | gaggcagaga | atgcagtgag | 3000 |
| ccgagattgt | gccgctgcac | tccagcctag | caagagagtg | agactccgtc | tcaaaaaaat | 3060 |
| aaaaaactca | tcttgtgcc | actgttggt | tgtgtccaat | actccaagaa | atattctact | 3120 |
| ggggccaggc | acagaggctc | tgggcagtaa | tcccagcact | ttggggaggcc | gtggtgggag | 3180 |
| gatcacatga | gccaggagt | tccaggctac | agtgagctat | gattgtgcca | ccacactcca | 3240 |
| gcctgggcaa | cagagcaaga | ccctgtcaag | aaaagaaaaag | aagacaaaag | aaaagagaaa | 3300 |
| gaagaaacga | aagactccat | caggcccttt | cattgttccc | actctttctt | cacagggttc | 3360 |
| tttctagagc | atcaatgact | gttcaattct | tccttcta | tcagtccaaa | cacttcagca | 3420 |
| tggcatcacg | atctttcatg | ttctgggttc | caacctaac | ctacattctg | ggatctcaac | 3480 |
| agaaagctgg | aataaggccc | gccttttccc | acttttctt | agctgtgccc | tcctctcgcc | 3540 |
| atcctctcac | gcgtccttcc | aggtccatcc | ctggattatt | aatcaattaa | taattaattg | 3600 |
| acaatgaatt | attcatttga | ttaatatgaa | taattcccct | gtgaactgca | gcggcaaaag | 3660 |
| ctctggcctt | gaatctaggc | gcggcattta | ccatccgtgt | gacattacca | agccactgag | 3720 |
| gtttattttc | tcgtctacag | aagaagaacg | attaccatgc | ctgtctctca | gggtgtgtgc | 3780 |
| caggggttaac | tgagacaaca | gacagaaacc | tctaattgtc | cctctccagg | cctgtctaac | 3840 |
| ccttcggctc | ttgcctcaag | ccggccgcgc | tgctggagtg | tggactgagg | accagaccat | 3900 |
| gtagcccttg | atccctcac | ggcgtcccac | agacaggtag | gcagggaaagg | ggcctaaaca | 3960 |
| actcaagtgt | cagaaatgtt | tctcgtccaa | ggtcttagga | aaaatacaac | acgaccccat | 4020 |
| aaggtggaac | ttattaccgc | ttttctacaa | tggaggaaaag | agaggctcgg | agcttacgcg | 4080 |
| actggcccaa | ggctcacagg | gggaaaagt | gcgggacctc | ttgactgcga | atcccgcgca | 4140 |
| ctccagacc | cggctcccca | cggcccccag | cgccaagcgg | accccgctcg | tcccggaggc | 4200 |
| gcttcccatg | gggtctcacc | tggccttttg | gacacgcggc | ctcggcggct | aaagcttggg | 4260 |
| tcgggggtgc | cccgggcagg | cggctctaag | ctcgtctctc | cttctcagct | tagcggcggg | 4320 |
| tggcctgacg | ttcagccgcc | ttccaaagcc | cgcgtccc | tcacgtgacc | tgctcgccac | 4380 |
| gcacagcctc | ttggggcgcg | tagtgaggc | tgcgtcccct | cagacggctg | ctctcatggc | 4440 |
| aac | | | | | | 4443 |

```
<210> 12036
<211> 4356
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| <400> 12036 | | | | | | |
| ttttggttac | ttttagaatt | ttattgactt | ttttcttcat | aacttttaaaa | caaaaacagc | 60 |
| gcatgaaaac | cagtgtctta | ttccaaagtc | tcaactcagc | tgattttgcag | gtgaacatca | 120 |
| ccatcttact | cctctgaata | actagacaca | aatacatagc | aagttcgagt | ttctgcccac | 180 |
| ccaagacaca | gccagtaatc | agtcacaaac | acagacacag | ccaactccag | gggctccagc | 240 |
| ttttctgccca | tcttctctca | gcagtttctc | ccatctgcta | agatgcgcct | tcttggtggc | 300 |
| tctctctcaa | ggtgggtcaa | ggctgaacaa | gacagaaaag | cacagcttag | gtccaccatc | 360 |
| acctcccact | ggccaccagt | tggccagcca | ggaaatacatt | tctgtacatc | tttgttctcc | 420 |
| ccctttttatc | tcctctctct | ttctccaaaa | cttggttgcta | tctatcactt | tcatgttaaca | 480 |
| atggacttag | tgtccattaa | actgcctgag | aagtggtttg | agcctgacat | atthttcctga | 540 |
| gctaaaaaag | gaaaagtacc | tctgtggcct | tcttgccatt | aagatcaagt | aaaaaaggga | 600 |
| ctagcactac | tgaaaagggt | cacgctagaa | aagccttaga | atcctctctc | caccccgtga | 660 |
| aggtttctct | agctgtagct | cttaagggtta | caagacggca | aatattcttg | ggtgaaggag | 720 |
| gtataatggg | gaaacacatt | tattttcccc | ttttaaactt | ccttgctgcc | ccagtctttg | 780 |
| ccttcttctt | agtggatccc | ttgggttctg | gctccttgcg | cttagctgaa | gagagtgcgc | 840 |
| cggtcacctt | gaagaaatca | tccaggcggc | cctgggtgct | gccttggcgg | ctcttactca | 900 |
| gcctcttgac | cccactgcgg | attcgctcct | cagagaactg | cttttcacca | cacatgaact | 960 |
| tgatcagctc | ttcttcattt | ggctcgctcc | acttcagctc | cacagactct | gggtccagca | 1020 |
| cctcaggttc | caagaagagc | tggtagcctt | ccttggtggag | ccaattttct | ggcacagggt | 1080 |
| actgtgtggg | gtcaagtcgc | cgcacgatct | cctcgatgct | cttggtgctt | tggatgaggt | 1140 |
| ccacagcccg | cttggggcca | atacccggga | tactctcaca | gtagtcactg | cctagcagga | 1200 |
| tgacacagatc | cacaaactgt | tcctggttca | ggcccagctc | ctgcagaatc | cggctcaggt | 1260 |
| ggaattcctg | gattggcagc | tttttggctt | cactggcagt | caggtgtcgc | attagcacag | 1320 |

| | | | | | | |
|------------|-------------|-------------|------------|------------|-------------|------|
| ggctgccgaa | ggtgaggcag | tccatgtcct | cggtagccgc | agcatagact | ttgccagcct | 1380 |
| tcaccagggc | agcacagctg | gcctctgcct | cactgggtgc | atcaagataa | gggatgccca | 1440 |
| tgaggctcag | cagatgtttg | cactcatcat | tgtgctgctt | agtgaacctc | accagccgct | 1500 |
| tagtgaattt | ttccacctcc | tgtcgggccc | cagcagcctg | agcctgctgc | agctgcttct | 1560 |
| ctgcctcagc | ccgccgctca | ctgcgttttg | ccagctcgcc | tgacttgagc | tgtggcggtg | 1620 |
| tgccatcaaa | gacatacacg | ggcttgatgc | cgttctccat | catgcgaatg | gtgcggtaga | 1680 |
| acatgcccac | caggtggctg | gtgggtctcac | cctcctcatt | ctgcagcaca | tccccaccct | 1740 |
| ggcgaacagc | aatcaggaac | tgataaatgc | tcatagaggc | atcaatggcc | accttacggc | 1800 |
| caaagtagct | cttgatgtca | ttctcccggg | tggcactggg | ggccacatca | gcaattagtt | 1860 |
| tggccaggcc | ttgaattccc | atggcaacac | agaggaggga | tgactaaaaa | agaaaggcaa | 1920 |
| gtcagagacg | gaggaaagga | gaaaggttat | aactgggtgt | atctcaccaa | cttcatgcct | 1980 |
| tcaactaaat | ttcacacaac | aaaaaggaca | ccatgtcagc | actgctaaag | ataaaaagat | 2040 |
| gaacaaggtc | cccattctca | aaaaactcag | tctagcagga | gaatttactc | aatagtaagg | 2100 |
| ctcaacgagt | accagaaatt | gaaccacgtg | cttagagaaa | taagatactg | ttgatattct | 2160 |
| aaggtagcag | cattattttat | tacacaaaaa | aaacctgcaa | cataggtctc | catcaaggac | 2220 |
| cacagaaggc | caggatgctt | ggcctgggct | gaggagtcca | gggaccataa | tggcagacct | 2280 |
| gaaagacagg | caaatacacc | agctaaacaa | acagatctga | tttgttttga | gtctctggag | 2340 |
| aaccctgact | aataaggcag | ccttgaaaaa | ggattgcaaa | catatctgaa | tggaggtgat | 2400 |
| gtggctttct | cacaagcttc | tctaaactct | cttcatcatc | gcctcagcac | ataagagttt | 2460 |
| ctacttttat | tataatgttg | ctagagtttc | aagtctttcc | ctttgcgttt | tctcgccacc | 2520 |
| actcagctcg | aaatgttaac | tccatggctc | ctccccaggt | cctgatttag | gggtctggca | 2580 |
| tgctgtagtc | actgggctca | aaagagtatt | gcacttcaga | gttcagtggt | tcccagatag | 2640 |
| cagtgtttcc | caaatcaccc | tcacgatttt | tgctacttcc | aactaaaacc | cgtactttca | 2700 |
| ttcacttaga | atttttttta | aaaaactaaa | ctggaaaact | cataagcaat | aatattttgtg | 2760 |
| ttctattagt | tatattttta | tatgtattaa | atgtataact | attaaaaagg | attttttaggg | 2820 |
| ggtgcaatth | aaaatcatct | tgccatcctg | gccaacacgg | tgaaccctg | tctctactaa | 2880 |
| aaatacaaaa | aaaaaaaaaa | ttagctgggt | gtgggtgggt | gcacctgtaa | tcccagctac | 2940 |
| tcgggagggt | gaggcaggag | aatcgcttga | acccaggagg | cagagaatgc | agtgaagcca | 3000 |
| gattgtgccc | ctgcactcca | gcctagcaag | agagtgaagc | tccgtctcaa | aaaaaataac | 3060 |
| aaactcatct | tgtgcccact | gttggatatg | gtccaatact | ccaagaaata | ttctactggg | 3120 |
| gccaggcaca | gaggctctgg | gcagtaatcc | cagcactttg | ggaggccgtg | gtgggaggat | 3180 |
| cacatgagcc | caggagtthc | aggctacagt | gagctatgat | tgtgccacca | cactccagcc | 3240 |
| tgggcaacag | agcaagaccc | tgtcaagaaa | agaaaagaag | acaaaagaaa | agagaaagaa | 3300 |
| gaaacgaaag | actccatcag | gccttttcat | tgttcccact | ctttcttcac | agggttcttt | 3360 |
| ctagagcatc | aatgactggt | caattcttcc | ttctaattca | gtccaaacac | ttcagcatgg | 3420 |
| catcacgata | tttcatgttc | tggttcccaa | cctaacccta | cattctggga | tctcaacaga | 3480 |
| aagctggaat | aaggcccgcg | ttttcccact | tttccttagc | tgtgccctcc | tctcgccatc | 3540 |
| ctctcacgcg | tccctccagg | tccatccctg | gattattaat | caattaataa | ttaattgaca | 3600 |
| atgaattatt | catttgatta | atatgaataa | ttcccctgtg | aactgcagcg | gcaaaagctc | 3660 |
| tggccttgaa | tctaggcgcg | gcattttacca | tccgtgtgac | attaccaagc | cactgaggtt | 3720 |
| tattttctcg | tctacagaag | aagaacgatt | accatgcctg | tctctcaggg | ctgctgccag | 3780 |
| ggttaactga | gacaacagac | agaaacctct | aatgtcccct | ctccaggcct | gttcaaccct | 3840 |
| tcggctcttg | cctcaagccg | gccgcgctgc | tggagtgtgg | actgaggacc | agaccatgta | 3900 |
| gcccttgatc | ccctcacggc | gtcccacaga | caggtaggca | ggaaaggggc | ctaaacaact | 3960 |
| caagtgtcag | aaatgtttct | cgtccaaggt | cttaggaaaa | atacaacacg | accccataag | 4020 |
| gtggaactta | ttaccgcttt | ttacaattgg | aggaaagaga | ggctcggagc | ttacgcgact | 4080 |
| ggcccaaggc | tcacaggggg | aaaagtggcg | ggacctcttg | actgcgaatc | ccgcgcactc | 4140 |
| cagaccccg | ctccccacgg | ccccacgcgc | caagcggacc | ccgtcgctcc | cggaggcgct | 4200 |
| tcccattggg | tctcacctgg | cctttgggac | acgcggcctc | ggcgggctaa | gcttggttcg | 4260 |
| gggttgcccc | gggcaggcgg | tcctaagctc | gctctccctt | ctcagcttag | cggcgggtgg | 4320 |
| cctgacgttc | agccgccttc | caaagcccgc | gtcccc | | | 4356 |

<210> 12037
 <211> 1572
 <212> DNA
 <213> Homo sapiens

<400> 12037
 tacaaagcag tattttataca tttattttata tatgtatatt tacttcagaa gaaacgaaca 60
 tttcggggac aggaagcaag caggccccgg gctgcttccc tcaactgccca cctcagagtc 120

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|------|
| agagttggca | catgacaaat | accaagctca | gggagaagaa | ctgggagtta | actgggaagt | 180 |
| agggggcgct | ctatgcacac | gcaggcttct | aaggggtgcac | ggtatgggca | ggaggatttg | 240 |
| cactgggagg | ccctatgtac | agcttgaagc | tagggggaga | ttagcccagt | gactacagga | 300 |
| acaaacgcca | aaggagagag | aagaaggag | ggatgacctg | ctggacccca | gggcagggac | 360 |
| agggccaaga | cactcacacc | attgccagcc | gggcagctgg | cagcttccag | caggtggccc | 420 |
| acttaccttc | cctgaagccc | ttttaccaca | ggcttaaggc | aactttggtc | caaggttgac | 480 |
| cccctcaagc | agcttggatc | cccagcctgt | ccccaaactcc | tgcactgagg | aaccctccc | 540 |
| caggcttgga | aacagagcca | gctgctaacg | gttttggggc | tgtgctgtgt | ccagatgggc | 600 |
| tccatggggc | agtggacggt | cactttccag | ttaaggactg | agggcccgc | gtccaagaac | 660 |
| atgaaccccc | attgaggaag | cccaggaatc | ctattacatg | gagtggggct | cggcagtttt | 720 |
| aaggcatagg | gaggattccc | ccagtgggag | ggagaacaaa | gtcatcataa | ggaaggctca | 780 |
| gcccctgcat | ggtttgggaa | tcgtaaaatt | cctatgtcaa | cggaaacaaa | ttggggaggg | 840 |
| ggctgggagc | aagctatccc | tgctattcct | gcctccccct | gctcttccct | atcctgagga | 900 |
| caagtgcttt | gagatcaatg | gcaaaagggg | gcctgcagtt | cataggcttc | aaggaaaggc | 960 |
| ctccactata | gaaaggcctc | ccattcaaag | ctgagaatga | gtggtgggac | aggggcaagg | 1020 |
| cctgcttccc | aaagaggtgg | cagcatacca | cagggcaagg | acagcaattc | cctttcccat | 1080 |
| ttctggaccc | atggcagaca | tggctaaatg | aatactacac | tccttccatg | agcctggatg | 1140 |
| tagcctcgga | atgcaccagg | caccactaag | aaacttgaag | gtggcactta | agatacaact | 1200 |
| tcttccctaa | cccaggggtct | tgggtggttg | gagtgggatg | ggtgtcggag | gctccctggg | 1260 |
| agggatcaga | gtcagagccc | tgtctttgca | agtgtcacac | ccctgctctg | gcccactctg | 1320 |
| agctttctag | ctccatcctt | ccattccttc | ctgccctggg | ttaagtgc | ttagtaatta | 1380 |
| cttcattaat | aacagcaaaa | gctatttgca | tctgccacc | agccaagacc | aggctgctgc | 1440 |
| ttgagggatt | cctgctcctc | tgctcagaga | gaatgatgtg | gtcactgatc | actgtgagct | 1500 |
| ccagacgctc | ccaggaacgc | aggcagtga | gctgcaatac | catctggggg | ctcaaagga | 1560 |
| atttctctt | cc | | | | | 1572 |

<210> 12038
 <211> 1572
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|------|
| <400> 12038 | | | | | | |
| tacaaagcag | tatttatata | tttatttata | tatgtatatt | tacttcagaa | gaaacgaaca | 60 |
| tttcggggac | aggaagcaag | caggcccg | gctgcttccc | tcactgcca | cctcagagtc | 120 |
| agagttggca | catgacaaat | accaagctca | gggagaagaa | ctgggagtta | actgggaagt | 180 |
| agggggcgct | ctatgcacac | gcaggcttct | aaggggtgcac | ggtatgggca | ggaggatttg | 240 |
| cactgggagg | ccctatgtac | agcttgaagc | tagggggaga | ttagcccagt | gactacagga | 300 |
| acaaacgcca | aaggagagag | aagaaggag | ggatgacctg | ctggacccca | gggcagggac | 360 |
| agggccaaga | cactcacacc | attgccagcc | gggcagctgg | cagcttccag | caggtggccc | 420 |
| acttaccttc | cctgaagccc | ttttaccaca | ggcttaaggc | aactttggtc | caaggttgac | 480 |
| cccctcaagc | agcttggatc | cccagcctgt | ccccaaactcc | tgcactgagg | aaccctccc | 540 |
| caggcttgga | aacagagcca | gctgctaacg | gttttggggc | tgtgctgtgt | ccagatgggc | 600 |
| tccatggggc | agtggacggt | cactttccag | ttaaggactg | agggcccgc | gtccaagaac | 660 |
| atgaaccccc | attgaggaag | cccaggaatc | ctattacatg | gagtggggct | cggcagtttt | 720 |
| aaggcatagg | gaggattccc | ccagtgggag | ggagaacaaa | gtcatcataa | ggaaggctca | 780 |
| gcccctgcat | ggtttgggaa | tcgtaaaatt | cctatgtcaa | cggaaacaaa | ttggggaggg | 840 |
| ggctgggagc | aagctatccc | tgctattcct | gcctccccct | gctcttccct | atcctgagga | 900 |
| caagtgcttt | gagatcaatg | gcaaaagggg | gcctgcagtt | cataggcttc | aaggaaaggc | 960 |
| ctccactata | gaaaggcctc | ccattcaaag | ctgagaatga | gtggtgggac | aggggcaagg | 1020 |
| cctgcttccc | aaagaggtgg | cagcatacca | cagggcaagg | acagcaattc | cctttcccat | 1080 |
| ttctggaccc | atggcagaca | tggctaaatg | aatactacac | tccttccatg | agcctggatg | 1140 |
| tagcctcgga | atgcaccagg | caccactaag | aaacttgaag | gtggcactta | agatacaact | 1200 |
| tcttccctaa | cccaggggtct | tgggtggttg | gagtgggatg | ggtgtcggag | gctccctggg | 1260 |
| agggatcaga | gtcagagccc | tgtctttgca | agtgtcacac | ccctgctctg | gcccactctg | 1320 |
| agctttctag | ctccatcctt | ccattccttc | ctgccctggg | ttaagtgc | ttagtaatta | 1380 |
| cttcattaat | aacagcaaaa | gctatttgca | tctgccacc | agccaagacc | aggctgctgc | 1440 |
| ttgagggatt | cctgctcctc | tgctcagaga | gaatgatgtg | gtcactgatc | actgtgagct | 1500 |
| ccagacgctc | ccaggaacgc | aggcagtga | gctgcaatac | catctggggg | ctcaaagga | 1560 |
| atttctctt | cc | | | | | 1572 |

<210> 12039
 <211> 4355
 <212> DNA
 <213> Homo sapiens

<400> 12039

| | | | | | | |
|------------|-------------|--------------|-------------|-------------|-------------|------|
| ttttggttac | ttttagaatt | ttattgactt | ttttcttcat | aacttttaaaa | caaaaacagc | 60 |
| gcatgaaaac | cagtgtctta | ttccaaagtc | tcaactcagc | tgattgccag | gtgaacatca | 120 |
| ccatcttact | cctctgaata | actagacaca | aattacatag | caagttcgag | tttctgccc | 180 |
| cccaagacac | agccagtaat | cagtcacaaa | cacagacaca | gccaaactcca | ggggctccag | 240 |
| ctttctgccc | atcttctctc | agcagttcct | cccattctgct | aagatgcgcc | ttcctgggtgg | 300 |
| ctctctctca | aggtgggtca | aggctgaaca | agacagaaaa | gcacagtcta | ggtccaccat | 360 |
| cacctccac | tggccaccag | ttggccagcc | aggaaatcat | ttctgtacat | cttttgtctc | 420 |
| ccccctttat | ctccctctct | cttctccaaa | acttggtgct | atctatcact | ttcatgtaac | 480 |
| aatggactta | gtgtccatta | aactgcctga | gaagtgggtt | gagcctgaca | tattttcctg | 540 |
| agctaaaaaa | ggaaaagtac | ctctgtggcc | ttcttgccat | taagatcaag | taaaaaaggg | 600 |
| actagcacta | ctgaaaaggg | tcacgctaga | aaagccttag | aatcctctct | ccaccccggtg | 660 |
| aaggtttctc | tagctgtagc | tcttaaggg | acaagacggc | aaatattctg | gggtgaagga | 720 |
| ggtataatgg | ggaaacacat | ttattttccc | cttttaaaact | tccttgcctgc | cccagtccttt | 780 |
| gccttcttct | tagtggatcc | cttgggttct | ggctccttgc | gcttagctga | agagagttag | 840 |
| ccggtcacct | tgaagaatc | atccaggcgg | ccctgggtgc | tgcttggcg | gctcttactc | 900 |
| agcctcttga | ccccactgcg | gattcgctcc | tcagagaact | gcttttcacc | acacatgaac | 960 |
| ttgatcagct | cttcttcatt | tggctcgctc | cacttcagct | ccacagactc | tgggtccagc | 1020 |
| acctcaggtt | ccaagaagag | ctgggtgagc | tccttgtgga | gccaattttc | tggcacaggg | 1080 |
| tacttggttg | ggtcaagtcg | ccgcacgatc | tcctcgatgc | tcttgtgctt | ctggatgagg | 1140 |
| tccacagccc | gcttgggccc | aataccccgg | atactctcac | agtagtcaat | gcctagcagg | 1200 |
| atgcacagat | ccacaaaactg | ttcctgggtc | aggcccagct | cctgcagaat | ccggctcagg | 1260 |
| tggaattcct | ggattggcag | ctttttggct | tcactggcag | tcaggtgtcg | cattagcaca | 1320 |
| gggctgccga | aggtgagga | gtccatgtcc | tcggtagccg | cagcatagac | tttgccagcc | 1380 |
| ttcaccaggg | cagcacagct | ggcctctgccc | tcactgggtg | catcaagata | agggatgcc | 1440 |
| atgaggctca | gcagatgttt | gcactcatca | ttgtgctgct | tagtgacctt | caccagccgc | 1500 |
| ttagtgaatt | tttccacctc | ctgctcgccc | ccagcagcct | gagcctgctg | cagctgcttc | 1560 |
| tctgcctcag | cccgcgcctc | actgcgtttg | gccagctcgc | ctgacttgag | ctgtggcgcc | 1620 |
| ttgccatcaa | agacatacac | gggcttgatg | ccgttctcca | tcatgcgaat | ggtgcggtag | 1680 |
| aacatgccca | tcaggtggct | ggtgggtctca | ccctcctcat | tctgcagcac | atccccaccc | 1740 |
| tggcgaacag | caatcaggaa | ctgataaatg | ctcatagagg | catcaatggc | caccttacgg | 1800 |
| ccaaagtagc | tcttgatgtc | attctcccgg | atggcactgg | gggccacatc | agcaattagt | 1860 |
| ttggccaggg | cttgaattcc | catggcaaca | caagaggagg | atgactaaaa | aagaaaggca | 1920 |
| agtcagagac | ggaggaaagg | agaaaagggtta | taactgggtg | tatctcacca | acttcattgc | 1980 |
| ttcaactaaa | ttccacacaa | caaaaaggac | accatgtcag | cactgctaaa | gataaaaaaga | 2040 |
| tgaacaaggt | ccccattctc | aaaaaactca | gtctagcagg | agaattttact | caatagtaag | 2100 |
| gctcaacgag | taccagaaat | tgaaccacgt | gcttagagaa | ataagatact | gttgatattc | 2160 |
| taaggtagca | gcattattta | ttacacaaaa | aaaacctgca | acataggtct | ccatcaagga | 2220 |
| ccacagaagg | ccaggatgct | tggcctggct | tgaggagtc | agggaccata | atggcagacc | 2280 |
| tgaagacag | gcaaatatc | cagctaaaca | aacagatctg | atgtgttttg | agtctctgga | 2340 |
| gaacctgac | taataaggca | gccttgaaaa | aggattgcaa | acatatctga | atggagggtga | 2400 |
| tgtggctttc | tcacaagctt | ctctaaactc | tcttcatcat | cgctcagca | cataagagtt | 2460 |
| tctactttta | ttataatgtt | gctagagttt | caagtctttc | cctttgcgtt | ttctcgccac | 2520 |
| cactcagtct | gaaatgttaa | ctccatggct | cctccccagg | tcctgattta | ggggtctggc | 2580 |
| atgctgtagt | cactgggctc | aaaagagtat | tgcacttcag | agttcagtg | ttcccagata | 2640 |
| gcagtgtttc | ccaaatcacc | ctcacgattt | ttgctacttc | caactaaaac | ccgtactttc | 2700 |
| attcacttag | aatttttttt | aaaaaactaa | actggaaaac | tcataagcaa | taatatttgt | 2760 |
| gttctattag | ttatatttta | atatgtatta | aatgtataac | tattaaaaag | gatttttagg | 2820 |
| gggtgcaatt | taaaatcatc | ttgccatcct | ggccaacacg | gtgaaaccct | gtctctacta | 2880 |
| aaaatacaaa | aaaaaaaaaa | attagctggg | tgtgggtggg | tgcacctgta | atcccagcta | 2940 |
| ctcgggaggg | tgaggcagga | gaatcgcttg | aaccaggagg | gcagagaatg | cagtgcagcg | 3000 |
| agattgtgcc | gctgcactcc | agcctagcaa | gagagtggag | ctccgtctca | aaaaaataaa | 3060 |
| aaactcatct | tgtgcccact | gttggtatgt | gtccaatact | ccaagaaata | ttctactggg | 3120 |
| gccaggcaca | gaggctctgg | gcagtaatcc | cagcactttg | ggaggccgtg | gtgggaggat | 3180 |
| cacatgagcc | caggagtctc | aggctacagt | gagctatgat | tgtgccacca | cactccagcc | 3240 |

| | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|------|
| tgggcaacag | agcaagaccc | tgtcaagaaa | agaaaagaag | acaaaagaaa | agagaaagaa | 3300 |
| gaaacgaaag | actccatcag | gcctttttcat | tgttcccact | ctttcttcac | aggggttcttt | 3360 |
| ctagagcatc | aatgactgtt | caattcttcc | ttctaattca | gtccaaacac | ttcagcatgg | 3420 |
| catcacgata | tttcatgttc | tggttcccaa | cctaacccta | cattctggga | tctcaacaga | 3480 |
| aagctggaat | aaggcccgcc | ttttcccact | tttccttagc | tgtgccctcc | tctcgccatc | 3540 |
| ctctcacgcg | tccttccagg | tccatcctgg | attattaata | aattaataat | taattgacaa | 3600 |
| tgaattattc | atttgattaa | tatgaataat | tcccctgtga | actgcagcgg | caaaagctct | 3660 |
| ggccttgaat | ctaggcgcg | cattttaccat | ccgtgtgaca | ttaccaagcc | actgagggtt | 3720 |
| attttctcgt | ctacagaaga | agaacgatta | ccatgcctgt | ctctcagggc | tgctgccagg | 3780 |
| gttaactgag | acaacagaca | gaaacctcta | atgtcccctc | tccaggcctg | ttcaaccctt | 3840 |
| cggctcttgc | ctcaagccgg | ccgcgctgct | ggagtgtgga | ctgaggacca | gaccatgtag | 3900 |
| cccttgatcc | cctcacggcg | tcccacagac | aggtaggcag | gaaagggggc | taaacaactc | 3960 |
| aagtgtcaga | aatgtttctc | gtccaaggtc | ttaggaaaaa | tacaacacga | ccccataagg | 4020 |
| tggaacttat | taccgctttt | ctacaattga | ggaaagagag | gctcggagct | tacgcgactg | 4080 |
| gccaagget | cacaggggga | aaagtggcgg | gacctcttga | ctgcgaatcc | cgcgcactcc | 4140 |
| agaccccggc | tccccacggc | ccccagcgcc | aagcggaccc | cgtcgctccc | ggaggcgctt | 4200 |
| cccatgggg | ctcacctggc | ctttgggaca | cgcggcctcg | gcggtctaaag | cttggttcgg | 4260 |
| ggttgccccg | ggcaggcggt | cctaagctcg | ctctcccttc | tcagcttagc | ggcgggtggc | 4320 |
| ctgacgttca | gccgccttcc | aaagcccgcg | ctccc | | | 4355 |

<210> 12040
 <211> 30620
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| <400> 12040 | | | | | | |
| acagtctcca | ctgaaaggct | aaatgggagg | atcttccccc | gtgacctcaa | aaggtatttt | 60 |
| aaagctaata | aatgcctgtg | ttcattgaat | gttctttcat | taataaagcc | attaatgggt | 120 |
| gtttttgttt | ggttgttctg | tccatttaga | aagctgactt | gcctctaaac | ccttgttttt | 180 |
| tcttccactc | cccactccat | gtcattttct | cacctcagct | attgtggatg | ctgatggaag | 240 |
| aattttatatt | cggaactggc | aggggtggcat | cctgtctggg | ggctttgaga | agaacccgaa | 300 |
| accaattttc | actgagggca | agaaccagct | ggagattcag | aatctacagg | aagactggga | 360 |
| tcacttttgg | atgtgaactg | cattataacc | gtagtgcctt | atattttgtt | aagatgttat | 420 |
| atttttcaaa | gtattttgaa | gaatagttcc | ttgtttaatg | tttataacat | cgccatgagg | 480 |
| tacaacagtg | gttacagagg | gtgagtttgc | ctggctctgag | gatggagtta | ctaggttagca | 540 |
| gattcagggg | actaaaatct | tagttaatag | acattttgct | tattcttttt | taattttatt | 600 |
| cttagtttta | cttttttttt | tttatttctt | gagacggagc | cttgctccgt | gctcagactg | 660 |
| gagtgcagtt | gcacaattat | agctcactgc | agccccgaac | tcctgggtct | atagcttttt | 720 |
| ttttttcttc | tttttggtag | agacatggtc | tcgccatggt | gcccagggtg | atctcgaact | 780 |
| ccaaggctca | agtgatccct | ttcaccttgg | cctcccaaag | tgctaagatt | acagatgtga | 840 |
| gccactgtac | ctagcccttt | gtgtgtgttt | agtcactctc | atcattttgt | gtgtgtgtga | 900 |
| gatggcgctc | tgccctgtca | cctaggctgg | agtgcagtgg | catgatcata | gctcactgta | 960 |
| gcctcaaatt | cgtgagctca | agcaatcctg | ccacatcagc | ctcccaagta | gctgggatta | 1020 |
| caggtgcttg | ccaccatgcc | tagctaattg | ttaaattttt | tgttgagatg | gggtctcgct | 1080 |
| gtgttgccca | ggctgggtct | gaactcttgg | gctcagtcga | tcctgcctca | gcttcccaaa | 1140 |
| gtgctgtgat | tacgggcatg | agccatgata | cccagctgct | tttttttttt | tttttttttt | 1200 |
| gagatgaagt | ctcgctctgt | tgcccaggct | ggagtgcagt | gggtgtgatc | cggctcactg | 1260 |
| caacctctgc | ctccccgggt | caagtgatcc | tcctgcctca | gcctccagag | taggtggtag | 1320 |
| gtgggattac | aagcgcctgc | caccactccc | gactaatttt | tgtgttttta | gtagagacag | 1380 |
| ggtttcacca | tgttgatcag | gctggctctt | aactcctgac | ctcaggtgat | ccgcctgcct | 1440 |
| cagcctccca | aagtgtctgg | attacaggca | tgagccactg | cgtctggcct | tttttttttt | 1500 |
| ttgagataag | agtcttgctc | tgtcgccccag | actggagtgc | agtggcacaa | tctcggtcca | 1560 |
| ctccaacctc | cacctcctag | gttcaagtga | ttctcatgcc | tcagcctcct | gagtagctgg | 1620 |
| gattacaggc | atgcatcaac | atgtccagct | agtttatgta | tttttagtag | agacaggatt | 1680 |
| ttaccacgtt | ggccaggctg | gtcttgaaat | cctggcctca | agtgatctgc | ctgccttggg | 1740 |
| ctcccaaagt | gctgggagta | aagggtgtgag | ccactgtgcc | cagctctgct | tctttttttt | 1800 |
| gtttttttgt | ttttttttga | gatggagttt | cactcttggt | gcccaggctc | aagtgcaatg | 1860 |
| gtgcgatctc | ggctcaccgc | aacgtctgcc | tcccgggttc | aagtgattct | cctgcctcag | 1920 |
| cctcctgagt | agctgggatt | acagacatgc | gccaccacgc | ctgggctaatt | ttgtattttt | 1980 |
| agtagagaca | gggtttctcc | atgttggtca | ggctgggttc | gaactcctga | cctcaggaga | 2040 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tctgcccc | ttggcctccc | aaagtgctgg | gattacagac | gtgagccacc | atgccccggc | 2100 |
| cctgcttatt | ctttattcac | ctaaaattat | tgctcagatt | ttaggtttta | ggaggagact | 2160 |
| tctttcagta | ggacttcata | taaaattgaa | gagttcttta | gaaaacagaa | ttgttttggt | 2220 |
| ttgttttggt | tttcagaatt | gttttgtag | tgtagtattt | tattaaattt | taaaataatt | 2280 |
| ttatttattt | atgtatccat | tcattcattt | tgagatggag | tcttgctctg | ttgcccaggc | 2340 |
| tggagtgcag | tgggtgcgat | ttagctcact | gcacccctcc | cctcctggat | tcaagcaatt | 2400 |
| ctcctgcctc | agcctcccag | gtagctggaa | ttacaggcgc | ccaccacaac | gcagagccag | 2460 |
| tttttggtgt | tttagtagag | atgggggttc | actatattgg | caggctgggt | ttgaactcct | 2520 |
| gacctcaagc | gatccaccgc | cctcggcctc | ccaaagtgtc | gggattaccg | gtatgagcca | 2580 |
| ccgcacctgg | cctttaaggc | ctgtaatccc | agcactttgg | gaggccaagg | cgggcagatc | 2640 |
| gcctgaggtc | aggagttcaa | gaccagcctg | gccaacatgg | caaaaaccgc | tctaaatata | 2700 |
| aaaattagct | ggatgtgggt | gcgcacacct | gtaacgccag | ctacgtggga | ggctgaggca | 2760 |
| ggagaattgc | tggaaaccgc | gaggcagagg | ctgcagtggg | ctgagatcgc | accactgcac | 2820 |
| tccagcctgg | gtgacagagc | gagactccat | ctcaaaaaaa | aaaaaataa | taataataat | 2880 |
| atagttacct | agttccaaat | ttaaaaagat | gaaagagtct | ctaatagaag | atttccctct | 2940 |
| gacccttgat | gggctttctt | tttttaataa | attcttacgg | aaaatttcaa | acttttaaaa | 3000 |
| gtggatagaa | gctgggcaca | gtggcttaca | cctgtaattc | catcattttg | ggaggccaag | 3060 |
| atgggaggat | cactggagcc | caggaagtga | agaccagcct | gggcaacatg | gcgagactgg | 3120 |
| agactatgtg | tctactaaac | aaacctggcg | agagtagtat | gatgagcccc | catgtacca | 3180 |
| ttatccagct | ctggctgggt | ttcatctttt | tctgctgtcc | actggattat | gtcctgatgg | 3240 |
| tagatttctt | ttaaagcagg | gtgaaagtct | gtcttttgca | gctattccaa | tgcagaacat | 3300 |
| tgcctttttt | tttttttttc | ctgagatgga | gtttcactct | attgcccagg | ctggagtgc | 3360 |
| gtgtcacgat | ctctgctcac | ttcaacctcc | gcctctcaga | ttcaagcgat | ttttctgcct | 3420 |
| cagcctccc | agtagctggg | gttacaggct | tccaccatca | cgactggcta | atttttgat | 3480 |
| tttttagtag | gacgaggctt | cgccattttg | gccataatgc | tcttgaactc | ctgacctcag | 3540 |
| gtgatccgcc | caccttggcc | tcccaaagtg | ccgggggttac | aatgcaagc | caccatgccc | 3600 |
| agctcagaac | atcacctttt | attaaaatct | ctgtggccgc | catttaagag | cttttccact | 3660 |
| cacactggtc | ccttcaagat | tattatctgt | agatacgttt | tacttgctgt | tctctgctgc | 3720 |
| tttcttttct | aaccaatatc | ttttttcttc | agtctttata | ccaagtattt | tgcagctata | 3780 |
| tcctgtaatt | ctaccaaggt | ttctgtcttg | tgataaatgg | ccagttggc | tcgtctttaa | 3840 |
| aaaaatctct | tccagccgga | cgcagtgggt | cacacctata | atcctagcac | tttgggaggc | 3900 |
| cgaggcaggc | agatcacttg | aggtcaagag | ttcgaaacta | gtgtggccat | catggtgaaa | 3960 |
| ccccatctct | actaaaaata | caaaaaatta | gctgggcatg | gtgggtgcag | cctgtaatcc | 4020 |
| gagctaattg | gcaggctgag | gtgagagagt | agcttgaacc | tgggaggcag | aggttgagct | 4080 |
| gagccgagat | cgtgccacca | cactccagcc | ggggcgacag | agtgagactc | catctcaaaa | 4140 |
| aaaaaaaaaa | aaaaaatcaa | gagggttttct | gaaaggggag | agtgtaaaaa | agtagagggg | 4200 |
| ttgaaagtgg | tttaattcct | taaaggtgag | aactctattt | ggttttgttg | tcattgctca | 4260 |
| gagcctctgt | tgagttccct | tctgaggagg | atgccagaat | tagagactct | ggagatcatg | 4320 |
| aagttgggtga | actgcccaga | gaccttcaca | ccagacatga | ggtgcatcat | gggcgagtct | 4380 |
| cctgcagtgc | agggtacttt | tgtcctggca | ggaatgaact | ctgctggcct | ttcatttggt | 4440 |
| ggaggagccg | gaaagtaagt | ctttctcact | caaagtcagc | tgtgaacata | agtcaacttg | 4500 |
| ctgggtctct | tcccttctag | aattacttgt | tattaacatg | gcgtgtggta | tatttaattct | 4560 |
| agtatgttaa | gactaataag | aagatacatg | taattttgga | gttgtcccct | tctaagtatg | 4620 |
| agaggctccc | catgttccag | aaatgtcatc | gggcaaaaatg | tttttgcaac | tcatcttttg | 4680 |
| gagttagcca | cagatccctgt | gggatattct | tttatatttt | ttcagttata | acaaatattg | 4740 |
| gtcatttgag | tgtgtatttg | agtttggtag | ccaagtatgt | tgattgaggt | aggtatttga | 4800 |
| actaggtaat | acacggtttg | tttgtttttt | tagacagtct | tgtctgtgca | cccaggctgg | 4860 |
| aatgcagtga | catgatctca | ggtcactgca | acctccacct | cctgggttca | ggctattctc | 4920 |
| ctacctcagc | ctcccagagta | gctgggatta | gaggtgtgtg | ccaagacatc | tggctaattt | 4980 |
| ttctattttt | agtagagaca | gggttttcacc | atgttagcca | ggctgggtct | gaactcctga | 5040 |
| cttcaagtga | tccaccacc | ttggcctccc | aaagtgtcag | gattacagga | tgagccactg | 5100 |
| tgccccggcca | caagttttta | tttaaaaatt | agacactagg | ccgggcgcag | tggctcacgc | 5160 |
| ttgtaatccc | agcacttttg | gaggccgagg | tgggcggatc | acaaggatcat | gagatcgaga | 5220 |
| ccactctggc | taacacagtg | aaaccccatc | tctactaaaa | atacacaac | aaaattagcc | 5280 |
| gggcgttggt | gcgggtgctt | gtgggtccag | ctactcggga | ggctgagaca | ggagaatggc | 5340 |
| gtgaaccag | gaggcagagc | ttgcagttag | ccgagattgc | gccactgcac | tccagcctgg | 5400 |
| gcaacagagc | gagactctat | ctcaataaaa | ataataataa | taaaataaaa | taagacacta | 5460 |
| atgaacatta | aataagccag | tcacaaaagg | acaaataaccg | tgtgggttcca | cttatatgaa | 5520 |
| gttgctagag | ttgtcacatc | atagagacag | aaagtacaat | gggtgggtgcc | agaggcgggg | 5580 |
| gaggggagct | attcttgaat | gagcacagag | ttccagaaat | gcaagaggaa | aagagttcta | 5640 |
| ggatggatgg | tgggtgaaggt | tacaccgcag | tgtgaatgta | cccactgcca | ctgaactgaa | 5700 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| tacttacaaa | tgggtaagat | ggtagccacg | atgaaaagtt | tatttttaa | ttatgagacc | 5760 |
| agtctctctg | agtgatttgt | agaatggctc | tgaaaacagt | tacagaagag | gagttagaaa | 5820 |
| aatgttttga | gcaaaggaga | tgtggtcacg | taactgtata | atcttttagt | gacagaaaaa | 5880 |
| aaccatttgg | atatttagag | tatatattga | tgtgttttag | tcttatttct | tcatagatga | 5940 |
| ggcttataac | ttttttgaaa | caagatctta | ctctcaccca | ggctggagtg | cagtggcacc | 6000 |
| atcatagctc | actgcagccg | caagttcctg | ggctcaaggg | atcatcccgc | atcagactcc | 6060 |
| agaagagcta | gaactaactg | caggcgtgtg | ccaccatacc | cagctctttt | tttttttttt | 6120 |
| ttttttgaaa | cgaagttttg | ctcttggtgc | ccaggctgga | gtgcaatggc | acaatctcgg | 6180 |
| ctcaccacaa | cctctgcctc | ccgggttcag | gtgattctcc | tgcctcagcc | tcccagatag | 6240 |
| ctgggattac | aggcatgtgc | caccacgccg | gctaattttt | tttttttttt | tttttttttt | 6300 |
| tttgagttg | ggtttcgctc | ttgttgccca | ggctggagtg | caatggcgtg | atctaggctt | 6360 |
| actgcaacct | ctgcctccca | ggttcaagca | attctccttc | ctcagcctcc | gtagtagctg | 6420 |
| ggattacagg | cgtgtgccac | cacactggct | aattttgtat | ttttaataga | gacagggttt | 6480 |
| ctccacattg | gtcaggcttg | tttcgaactc | ctgacctcaa | gtgatccgtc | tgcctcggcc | 6540 |
| tcccaaagtg | ctgggattac | aggtgtgagc | cacctggctc | actttgaaac | tttttttttt | 6600 |
| ctgtagagac | gggtctttac | tatgttgccc | aggctggctc | caaactcctg | acttcaagca | 6660 |
| atctcctgcc | tcagcctccc | aaagttctgg | gattacaggc | atcagccaat | gtgtctggct | 6720 |
| ggcttctatg | ttaaatacct | cctaggggaat | cttatcatct | ggggtaaaat | cctcatagta | 6780 |
| gtcttttgag | agcagtacac | agacccatgt | tcgtttcttc | cagaaaagtt | aaggaaagtg | 6840 |
| cccaaaaacta | ttcagctggt | ctatggcaat | ttaggatctt | ttgattctgt | ttgttctcga | 6900 |
| tttgtagaat | attaattttc | tcaaattctca | cacctagacc | ccaacacgtg | ccctctgtct | 6960 |
| atataggtac | cttgccgaat | ggatggtaca | tggttatccc | tcagaaaacg | tttgggaatt | 7020 |
| ggacctgaaa | cgttttggag | ccctccagag | cagccgcacc | tttctgcgcc | accgggtcat | 7080 |
| ggaagtcattg | cgtaagtga | gctttatcgc | agttgctcct | agttgcaggt | atcttctcgg | 7140 |
| tggcccgtgt | tgtcattcag | aaggagcaaa | gttttctcga | gttctttaac | aagtgttttg | 7200 |
| agttgggcat | ttgatttgac | tgtttcaggc | ctgagttaag | gggctttatg | ctcctcatga | 7260 |
| tatatacgta | acattttctt | tagtgcacgt | gacctgtgtt | cattctgaga | acaagaaaat | 7320 |
| agaataggag | ttacagttgg | tacatagcag | cttcataaat | attctaagca | atgccttctt | 7380 |
| cccggtctgc | cttgagagag | cgttatgtcga | agtgcgtgct | ttctgcagtc | tgccttgaga | 7440 |
| gacctgtgtg | cgaagtgaat | gctttctcac | tcccacttag | tttttgagaa | aatgctttct | 7500 |
| cactccccac | ttagtttttt | ctttccaagt | cagagaattt | gccgagttat | tctcagagct | 7560 |
| tcaggcttcc | gtgagtgaat | ttcaccatta | atccacccta | cagcagcaag | attgggagcc | 7620 |
| acttcccata | taaatacaaa | acatacatct | ctgctctcac | tcccgtgttc | tcgccttgct | 7680 |
| tcaactttga | aggattggcc | acttcatctt | aatttggtat | tctaccttga | tctctgattt | 7740 |
| attttctagg | aagcccttag | aaagcttttg | tatcaggaat | tgaaccaaac | cacgtgggtt | 7800 |
| caagttgtaa | tttcattttc | ctgtactgag | gagctgttct | cagactttgc | caaatgggtat | 7860 |
| ctaaatattt | tgggcatact | tatgctcagg | actaagtttc | tgtgttggtt | ctgaccacca | 7920 |
| ttcttggttg | caagtaaaact | gttagtttgg | tagttgaaca | acattgttgg | tgaggactct | 7980 |
| ggatggcctt | taatgcctga | gtgctcactt | ttggcctggg | aagaggatgt | acatccatgg | 8040 |
| agatgaagga | cctaacagca | atatgtttta | ctgctaagggt | tctttaattt | tagcaaatat | 8100 |
| tttggttaaa | atgttgaaact | tggctgggtg | tgggtggctca | tgcctgtaat | cccagcactt | 8160 |
| tgggacgttg | agggaggtag | gtcacttgag | gtcaggaggt | tgagaccagc | ctaggcaacg | 8220 |
| tagcgaaacc | ctgtctctac | taaaaccaa | accaaataat | tagccatgcc | tagtggcaca | 8280 |
| cacctgaagt | cccagctact | tgggaggtcg | aggtaggcga | atcacctgag | ctgggggaagt | 8340 |
| tgaggctgca | gtgagccatg | atggtgccac | tgtgtactcc | agcctgggca | gtgggactga | 8400 |
| gacctgtctc | caaaaaata | aaatacaaaa | tcaaagtttt | ttgttttaaa | gttgaactat | 8460 |
| tataagccta | aatttcccta | cccatagtta | ctttggaaac | tgtacaaatc | ataattgagc | 8520 |
| ttgagcttct | gcttggtgat | atgacacttt | tggtagccaa | ttctcatgaa | atagaagtgg | 8580 |
| caggcacata | gaaaatgggg | aaggcgccag | gcgcagtggc | tcaagcctgt | aatcccagca | 8640 |
| tgttgggagg | ctgaggcagg | cggatcactt | gaggtcagga | ggtctggcct | gaccaacatg | 8700 |
| gcgaaaccct | gtctctacta | aaaatacaaa | aatttagcca | gatgtgggtg | tacgtgcctg | 8760 |
| tgatcccagc | tacttggcag | gctgaggcag | gacaatcact | tgaaccgggg | agatggagggt | 8820 |
| tcagtgagc | caagatctca | ccactgcact | ctagcctggg | tgatagagag | ggattccatc | 8880 |
| tcaacaaaaa | ataaaaaaaa | aatagaaaag | aaaatggggg | aggggatgat | agaaccgaaa | 8940 |
| gtactaggag | atggagagat | tgtcaccatg | cacagaaccc | cacctggctt | ccttctcctg | 9000 |
| tctcccaacc | tccccaagcc | ttgatgtgcc | ttttgttttg | gatggtgtga | gatcaggggac | 9060 |
| cacagatcac | actcttctgg | cttttttttac | ttattgctgt | tgaagattag | accttaaggg | 9120 |
| aatgaatttt | tttttttttc | cgagacagtc | ttgctctatt | gcccaggctg | gagtgcctgt | 9180 |
| gcgtgatttc | ggctcactgc | aacctctgcc | tcctgggttc | aaacaattct | cctgcctcag | 9240 |
| cctcccagat | agctgggatt | acaggcgctt | gccaccatgc | ctggctaatt | tatgtatttt | 9300 |
| tagtagagac | agggtttcac | cacattgggtc | aggctgatct | tgaactcctg | acctcgtgat | 9360 |

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-------|
| cgcgccacct | cgacctctca | gtgctggggt | tacagacgtg | agccaccaca | ccgggcctaa | 9420 |
| gagaaatgaa | ttctgacctt | agctttgttg | tgtgaataat | gtcattggta | caatacaata | 9480 |
| taactttctca | gatttcagag | ccacctaatc | aagctgcaat | atgtaccctt | tcacttcaga | 9540 |
| agtgaagtaa | ttatcaggga | ggaaatgtct | gtaacaggtc | tgagatccta | acacaggcac | 9600 |
| aatgaagaat | cgaatgccat | tttttcacat | tttgttacca | cctgtgtccc | acttagtaac | 9660 |
| cttctttctct | gctatgaagc | ttggtaaggt | ttaggacctt | gacctttctg | ccatcatttc | 9720 |
| tacctactaa | tgtggaatgc | tgaatgtgaa | tacaggccga | gtcatgccgt | gacacgtagc | 9780 |
| tcaggggagg | gacgatagca | gcttggcagc | attgtctttt | ccttctggag | catgcctgat | 9840 |
| acactgggta | attttgaaaa | ttagactaca | ttagcctgga | aattgggccg | ggcagagtgg | 9900 |
| ctcacgcctg | taatcccagc | acttcggggg | gctggggcgg | gcagatcacc | tgaggctcgg | 9960 |
| agttttgagac | cagcctgacc | aacatggaga | aaccctgtct | ctactaaaaa | tacaaaaatt | 10020 |
| agtgtggcac | ggtgacacgt | gcctgtaatc | ccagctactc | gggaggctga | ggcaggagaa | 10080 |
| tcgcttaaac | ccaggaggca | gaggttgacg | taagccgaga | ttgtgccact | gcactccagc | 10140 |
| ctggacaaca | agagcaaaac | tccgtcttaa | aaaaaaaaaa | aaactacgtt | agcctggaaa | 10200 |
| gctctttttga | atagaaaaca | ctccagagtc | tagtggacat | gggctactca | ggtctagaat | 10260 |
| ctgtgtcttg | ggctttgata | gactactcgt | gtcttttcta | gctttgatgt | atgatctgaa | 10320 |
| ggttcccccg | tgggactttc | agaccggtag | gcagttacgc | acctctctct | tctacgaccg | 10380 |
| gctggatgca | cagggagcca | ggtggatgga | gaacatgga | tttgagaggc | caaagtactt | 10440 |
| tgttcccccc | gacaagggta | agaagtcaca | ttctcatttt | tgtctctttt | tttttttttt | 10500 |
| gtcctgggaa | ttaataaaac | atattttcaa | atgcataggc | tagaatgtgt | tcacagaaga | 10560 |
| aaaagaacca | cgtggactac | actaaactct | acagggcctt | gtgatttttc | cattccgtag | 10620 |
| acctcctggc | attggagcag | agcaagactt | tctataagcc | agattggttt | gacatcgtgg | 10680 |
| agtctgaagt | caagtgtctg | aaggaagctg | tgtgtgtcat | tgacatgtcc | tctttcacaa | 10740 |
| agtttgagat | aacagtaagt | atttggaac | caaaaagtaa | tagattagga | aactttacat | 10800 |
| atttattgaa | tgccttttgc | ttttcatctt | caaaactgat | tcctgactgg | gtgcagtggg | 10860 |
| tcatgcctgt | atcccagca | ctttgggagg | ccaaaggggc | gtggatcacc | tgaggtcaga | 10920 |
| gttccagacc | agcctggcca | agatggtgaa | accocgtttc | tactaaaaat | acaaaaatta | 10980 |
| aggccaggag | tgggtggctc | tgcctgtaat | cccagcagtt | tgggaggccg | agacgggtgg | 11040 |
| atcacctgag | atcaggagtt | caagaccagc | ctggccaaca | tggcgaaacc | gtctctacca | 11100 |
| aaaatacaaa | aaattaacca | ggcatggtgg | cgggcacttg | taatcccagc | tactcggggg | 11160 |
| gcaggagaa | cgcgtgaact | catgaggtgg | aggttgagct | gagctgagat | tgcgccactg | 11220 |
| cactcagcct | gggcaacaga | gtgagactcc | atctcaaaaa | aaaaaacaaa | aaacaaaaac | 11280 |
| aaaacactga | tttcttaaga | attctgggat | attttagtgt | ttcatctgta | ttgtaacatt | 11340 |
| tttctgaaat | tttagctcct | tgtttcaggt | ttttaatttg | ctagagaggc | ctgtttatca | 11400 |
| taagaatcaa | tagctagcgt | tccctggagc | ttcttgcagt | ggagtaggtc | tgcnaatggt | 11460 |
| gtcacatggg | aattggctga | ttgaattttc | tcaatgaggt | tcattgtctg | tggggccatg | 11520 |
| tggcccagcc | aggtgtctct | acgtctactc | tctctgtttc | attccctaac | cctgcagtcc | 11580 |
| actggggatc | aggcattaga | agttctacag | tacctcttct | ccaatgacct | ggatgtgcct | 11640 |
| gtggggccaca | ttgtgcatac | tggcatgtct | aacgaggggt | gaggggatga | aatgactgct | 11700 |
| agcatagcac | gactgaacaa | gcgcagggtg | gatgagctgc | cgtcccgtct | tgtcccctcc | 11760 |
| aacatggtga | ttccttaagg | gtgctgtagc | agagctctct | agggcgttct | ccgggaacca | 11820 |
| taaatcccag | agctctaagg | tcattactag | aaatcaaagc | cagtttatta | gcagctcctaa | 11880 |
| acaaaagaaa | taccaggag | gaaaagaaaa | aaaagcccac | cagattatgt | acctacttgg | 11940 |
| gagaagatgc | cttgtctttt | ttcttttttt | tttttttgag | acagggctct | accttggtac | 12000 |
| ccagggtgga | gtgcagtgat | gcgatcatgg | atccctgcag | cctggacctc | ctgggctcaa | 12060 |
| gtgatcctcc | cacctcagct | ttccaggtag | ctgggaccac | aggtacacgc | caccacaccc | 12120 |
| agccagtttt | tgtatatatt | gtagagatag | ggttttgcca | cattgcccag | gctgatcttg | 12180 |
| aacacctgag | ctcaagcaat | ctgcccacct | tggcctccaa | agtgtctggg | ttacagggtg | 12240 |
| gagccactgt | gcccaggcga | tgtcttaaac | ttagtaaate | tgtataattt | cttggcatta | 12300 |
| acagggaagc | agaattttgt | ttgtttgtta | gggtggtgat | cctagaatgg | tgtacttggc | 12360 |
| cttctgtgaa | agctaagaaa | tcattttccta | gtatttgcct | cattgctttg | aaaccaaata | 12420 |
| agattttgatt | gcttcctgat | ccttttgcgt | ctacctgggt | ttgatttatt | tggggtctca | 12480 |
| cttttcagtt | tcttcctgat | ctctccaacc | gaccagcagg | tccactgttg | ggcctggcct | 12540 |
| aagaaacaca | tgccgaaaga | cagcaacctg | ctcctggagg | acgtcacctg | gaagtacaca | 12600 |
| ggtacggggg | ttcgggctct | gccacgtcga | aaaggccagc | agatgcagat | gtgtccacgt | 12660 |
| ttgccttctt | tacatttgac | tctcaaaaat | gaacattaga | gttagcataa | aagaggctct | 12720 |
| ctggtcatag | aaaattgatc | tctaggggat | gcggtggctg | acacctgtaa | tcccagcact | 12780 |
| tttgaggccc | | | | | | |

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-------|
| aaaaaaaaaa | gaaaattgag | ggctggacac | agtggcttac | acctgtaatc | ccagcacttt | 13080 |
| gggaggctga | ggcggggcga | tcatgaggtc | aggaatttga | gaccagcctg | gccaacatgg | 13140 |
| tgaaccccca | tctctactaa | aaatacaaaa | attagctgga | catggtggtg | catgcctgta | 13200 |
| gtcccagcta | ctcatgaggg | tgaagcagga | gaatcgcttg | aatctgggag | gcagaggttg | 13260 |
| cagtgaacca | agatcatgcc | attgcacctc | cacctcccgg | gttcaagcga | ttcttctgcc | 13320 |
| tcagcctccc | aagtagctgg | gattataggc | gcccgcacc | acgccgggct | aatttctgta | 13380 |
| tttttagtag | agatgggggt | tcaccatggt | ggccaggctg | gtcttgaact | cttgacctcg | 13440 |
| tgatccacct | gcttcggcct | cccaaagtgc | tgggattaca | ggcatgagcc | accacgcccc | 13500 |
| gtcccagaga | gtacctaat | tttaaggatg | acttggttcc | ctgattttct | cactctcagc | 13560 |
| agtctcggct | taaccctctc | caccttcccc | cctaactgat | cttgccccct | ggccccacca | 13620 |
| gcgtttgtct | tcccaggctc | tcattctcaa | ttccttgtag | tagcaaatat | gatatacgtc | 13680 |
| ctgctcctgg | attgggatac | tacagaatgt | tactgaacaa | aagtcatggt | ctagcctgtc | 13740 |
| ttaggatgga | tgacatgtaa | ttagcacaag | ctgatgtcac | aaacactggg | gtccagaata | 13800 |
| atgctttcct | tatctagtaa | gcattaggat | atgtttgaag | tggatttagc | ttctctgaat | 13860 |
| ttaaagtctg | tatacttttt | ggttgggcag | atctccaccg | ggtactgatt | tgggggtggg | 13920 |
| gcttcttcca | tcacatagcc | ttgctgggaa | aaggaggaga | acgggaattg | tgtgggggtg | 13980 |
| ttatggccag | ccctgctgcg | ttcagcaggc | cctgttgcca | gaggtgtatt | cgccagaatc | 14040 |
| gggggtgctta | gcacccatcc | ttggagtgtc | taagcaaagg | gacatattcc | tgggtctctgc | 14100 |
| acccaggcct | ggctatagct | gagcaagtct | acagtagacc | tttcccatgg | gctcagctgt | 14160 |
| tcagaaggag | agctggacat | ctcttgttct | tttccattta | gccctcaate | tgattggccc | 14220 |
| tcgagctgtg | gatgtgctgt | ctagtgtgtc | ctatgcccc | atgactccag | accacttccc | 14280 |
| aagcctcttt | tgcaaggtaa | gtgctgataa | agtctgtttt | cttaaatggg | cagagaatgt | 14340 |
| gtctttcata | gcggtggcag | gtacatatct | ttactatggt | gttagcacc | acaaagagtg | 14400 |
| tcttggtctg | gtgaggtggc | acatgcctgt | aatcctagca | ctttgggagg | ccgaggcagg | 14460 |
| tggatcacc | aaagtcagga | gtttgagacc | agcctggcca | acatggtgag | accctgtctc | 14520 |
| tgttaaaaa | acaaaaatta | gctgggtatg | gtctcacgca | cctataatcc | cagctacttg | 14580 |
| ggaggctgag | gcacaggaat | cgcttgaact | ctggaggcag | aggtcgcagt | gagccgagaa | 14640 |
| cacgccactg | cactccacct | gggtgacaga | gtgagactct | gtctcaaata | aaagagtgtg | 14700 |
| ctggccaggt | gcagtggctc | acgcctataa | tcccagcact | ttgggattac | atcttatatt | 14760 |
| tataaataaa | tataaaaaata | caaaaattag | ccgggtgtgg | tggcgcagtc | ctgtggtccc | 14820 |
| agctactcgg | gaggctgagg | caggagaatg | acttgaacct | gggaggcaga | tgttgagtg | 14880 |
| agccgagatt | gcgccattgc | actccaggct | ggcaacagag | caagactgtc | tcaaaaaaaa | 14940 |
| aaaaaaaaat | gtgctgccct | tcattagcaa | agaagtgact | aagtatattt | atattattat | 15000 |
| ttattttatt | atattatttg | agacagagtt | tcactcttgt | tgacagggct | ggcgtgcaat | 15060 |
| ggtgcgatct | cggctcactg | caacctccac | ttcccgggtt | caggcgattc | tcctgtttca | 15120 |
| gcctcccag | tagctgggat | tacaagcgcc | cgccaccatg | cccagctaac | tttttgatt | 15180 |
| tttagtagag | acagggtttt | accatgtttg | ccaggctggt | cttgaactcc | tgacctcagg | 15240 |
| tgaaccaccc | acctcagcct | cccaaagtgc | tgggattaca | ggtgtgagcc | actgcgccc | 15300 |
| gccttatatt | tttatatttt | acactccaag | cttgctttat | ttaataagca | ttaggatata | 15360 |
| tttgaagtgg | attttagctt | tctaaatgta | aagtctttat | gctttttggt | ttctgtagca | 15420 |
| ctggattaaa | atttgaagtt | acaggattat | gacacacaca | aaaatgcctt | tcgaagttag | 15480 |
| gtcccttctc | tccatgcagt | gtggcctctt | ttctgtacac | agagtaactt | ctgtgtctgt | 15540 |
| ggcatcttca | gggaagaaat | ggcgtaggtg | aatctctgaa | cttcctacat | aattttcttt | 15600 |
| cctataagtg | gcaaccacag | ctgagtgaat | caaactgtaa | ccgaatgaaa | gcaatgacaa | 15660 |
| cggaaatcct | cccaggaagc | tgctgattag | agagggccaa | acggacagac | atcttgacca | 15720 |
| cctgtaacga | gcaacttcca | ggtggttact | gatggagact | ctttgaagtt | cacccaaagt | 15780 |
| gggatccacc | tacaaattgt | ttcacagtgt | tccttcttct | ccgaggcaaa | gtgaaagcaa | 15840 |
| cagaaaactc | tccactgtta | gctatcagtg | gacccctccc | agcgtttgct | ctgctgcttg | 15900 |
| gaggagtga | ccatacgctc | aacacctggc | gagtgtctga | tcctgtcagc | ctcctgtgga | 15960 |
| agcggttcac | ttcggtgctg | tccaggactt | tcacttttcc | tttataggaa | cggtgattgc | 16020 |
| gtcagtggcc | gctgttaggg | aactgagctg | ctatgtaacg | tgttctgaga | atcagaagcc | 16080 |
| catctttgac | cccaggatag | cagattaatt | atgtctgtgg | gcatcgggca | tcactttttg | 16140 |
| tatggcaggc | ggccagggtt | tgtctgtctg | ttcccccaga | gaagacactc | gccttgctct | 16200 |
| catgtgtcct | gctaccctcg | actaacacaa | ggacctggga | aagaggaata | ttttgtgctt | 16260 |
| gtcaaggact | ttcctccact | ctctaccact | agcttggtca | aaactcctga | gatggtaaca | 16320 |
| gtagcaagca | gagatgtcac | ataggcagtg | ctccattctc | tgtgcctcag | gacctggaag | 16380 |
| ttaaccactt | tcgggatgaa | attcttgcct | tgacgtctgt | ctccctcaac | agtaaacaga | 16440 |
| gggtgcagca | ctaatgaaag | gtttccccag | gcgtccctcc | cttgacaagt | aatgtgagtg | 16500 |
| cccaggctga | ctgctgcctt | tgtccctgca | ggagatgagt | gtgggctatg | caaatgggat | 16560 |
| ccgggtgatg | agcatgacgc | acacaggaga | gccaggattc | atgctctaca | tccccataga | 16620 |
| ggtgagaggg | caccttcccc | ttcccttccc | ttcacttccc | ttcccttccc | ttcccttccc | 16680 |

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|-------|
| tttccacaac | cactgtgggg | tgccagtgct | cccagcagcg | cgttcaccag | cactggcagg | 16740 |
| tttggagagc | tgtatctgat | tgggccttgg | gagctgaggt | aggctgcatt | gaagagattt | 16800 |
| gaccattttt | aactaagtta | tataagtttt | tttgaatagg | tgatacattt | aaaaagtttt | 16860 |
| tgggcgccgtc | tgatctgttc | tcaccaactg | tcaccaataa | tattagtatt | actttttatat | 16920 |
| gtcattttcag | atttgtatgc | atattgcaag | caaattcata | attaattttt | tttttttttt | 16980 |
| gagacagggt | ctcactcttt | tgcccagggt | ggagtgcaat | ggcatgaccg | tggtcactg | 17040 |
| cagcctcgac | ctctttgggt | caagccaccc | tcccacctcc | gcctcccag | tagctgggac | 17100 |
| tgtaggcatg | tgcccactatg | cctggctaact | ttttgtattt | ttttgtagag | acaggtttttg | 17160 |
| ccatgtcgct | caagctggtc | tcaaactcct | gacctcaggt | gatacaccca | cctgtgcctc | 17220 |
| ccaaagtgtc | gggattatag | gtgtgagcca | ccatacccg | ccaagccccc | tttttaaaaa | 17280 |
| cagaaatgga | agcatactgc | tattcttcat | cctgtttttt | tttttttcac | ttcacaattt | 17340 |
| tttttttaaat | tgaggcagag | tctcactctg | tcacctaggg | tggaatgtag | tggcataatc | 17400 |
| tcagttcact | gcaaccttcg | cctcccaggt | tcaagtgatt | gtcctgcttc | agcctcccga | 17460 |
| gtagctggga | ttacagggtgc | acgccaccac | gcctggctaa | tttttgtatt | tttagtacag | 17520 |
| acggggcttc | accatgttgc | ccaggcttgt | ttccaactcc | tgacctcaag | tggtccacac | 17580 |
| acctcagcct | cccaaagtgc | tggggattaca | ggcatgagct | accatgcccc | gcctcacttc | 17640 |
| acaattttctc | ttagagctct | ttctttgttg | gtacctaaag | caaaagagct | tccttgttct | 17700 |
| ttttttcttt | attttttaac | agtggcgtag | cattccattg | tggtacatca | ttccgatact | 17760 |
| aatagacatt | tatgttattt | ctagtctttt | gctgttataa | aaaggtctgc | aggctgagtt | 17820 |
| cagtctaate | atatgcaaat | agtaatatgt | tcttccttct | ccagaacctt | ttttttgaga | 17880 |
| cggagtctca | ctctgtcgcc | caggctggag | tgcaagtggc | caatctcggc | tcactgcaag | 17940 |
| ctccgcctcc | cgggttcacg | ccattctcct | gcctcagcct | cctgagtagc | tgggactaca | 18000 |
| ggcgccctgcc | accacgcccc | gctaattttt | tgtatttttc | atagagacgg | ggtttcaccc | 18060 |
| ggtaaacagg | aatggtctcg | atctcctacc | tctgtatctg | ccagccttgg | cctcccaaag | 18120 |
| tgtctgggatt | agaagcttga | gccaccgcac | ccggccggct | tttttttttt | ttttttcttt | 18180 |
| tttttttttga | gatgaagtgc | ccacttgttc | ccccaggctg | gagtgcgatg | acatgatcta | 18240 |
| ggctcacccg | aacctctgcc | tcccgggttc | aagtgtattc | ctgcctcag | cctcccaggt | 18300 |
| agctgggatt | acaggcgctc | gccaccacac | ccgactaatt | tttgtatttt | tagtagagac | 18360 |
| aggatttcac | catgttggcc | agcttgggtc | cgaactcctg | accttaggtg | atccaccac | 18420 |
| ctcggccctcc | caaagtgtcg | gaattacagg | cgtgagccac | cgcacccggg | cccatagtct | 18480 |
| ttcttcctat | aatttccttc | ctttgttcta | ttgtgacagg | tagcaatcaa | tgattgtagg | 18540 |
| catgcttggt | ttcttcttga | tgtttagtcat | actacttgta | gtgatagggt | ttctcttaat | 18600 |
| tttttttttt | tttgtgagac | agggcattgc | tctgtcaccc | aggctggctt | actgcagctt | 18660 |
| gacctccgag | gctgaagtga | tccccctgcc | ttagcctcct | gaatagctgg | gactacaagc | 18720 |
| atgtgccaac | atccccagct | aattttttta | tttttttttt | gtagaggcag | ggtccttgcta | 18780 |
| tgttgcctag | gctgggtctca | gactcctgga | ctctagtgat | cctctcacgt | cagcctccca | 18840 |
| aagtattggg | attacatgtg | tgagccacta | ccccgacctt | atttattact | attttttagt | 18900 |
| gcagtgggat | gatcatagct | cactgtagcc | ttgaacttct | gggcttaagc | agtcattcca | 18960 |
| cttcagcttc | ctgagtagat | aggaccacag | atgccagct | atcttttatt | tttttgtttt | 19020 |
| tagacggagc | ctcccactgt | cgcccagggt | ggagtgtagt | ggcatgatct | cggctcactg | 19080 |
| caagccccac | ctcctgggtt | caagcgattc | tcttgcttca | gcctcctgag | tagctgggac | 19140 |
| tacaggcaca | cgccaccaca | ctcggtaat | tttttgtatt | tttcatagag | acagggtttc | 19200 |
| accgtgttgg | caggagtggg | ctcaatcgcc | tgaacctgtg | agccgctctg | ctcagcctcc | 19260 |
| caaagtgtcg | ggattacagg | catgagccac | cgcacccggc | ctattttttt | attttttgta | 19320 |
| gctttgagag | tctcaatatg | ttgcccaggc | tggactctaa | ctccagcctc | aaatgatcct | 19380 |
| ctcatctcag | cctcccaaag | tgttgggatt | accggcgtga | gccactgtgt | ctggccctgt | 19440 |
| tttaactatt | tgagccactg | tgcccaaccc | tttttaaatg | attaaagcac | agataaatc | 19500 |
| agcgcatgaa | atttcatctg | cttttccaca | ctcagaagta | ttacaacaat | atgaagatga | 19560 |
| agagattggt | caagacttgg | gaagaattta | aacagatgca | gctgccatgg | ttggcctgtg | 19620 |
| caggcagggt | gattctgaag | tgccacccag | tggttcaggt | gttgtcacct | gggtgcttgt | 19680 |
| ggtcaaacct | ctacaggaag | gggaggctct | gtggctctag | cagcttcatc | cttgcttggg | 19740 |
| ggccttggtt | tcagctttct | gatttccctg | ggctgttccc | attcttatga | tttttcaaga | 19800 |
| gtctaagaga | ttatttgtgc | cacgcttggg | ttctttataa | gctggctttt | gtccaggaag | 19860 |
| cttatgtttg | tctctctgag | aagaggctct | ccaaaacatg | ggggcagatg | gcagattctc | 19920 |
| gttttggttca | cactaaatct | ctgggtattt | gtgagaaaaa | cagagtaaag | gtgggggaact | 19980 |
| actctttgag | taaatgggtg | ggaccactc | ttctctttga | ttttcccagc | attagtcacg | 20040 |
| tagttggatc | tggcccaaca | ctagtcacct | ggttacatcg | ttcttcct | | |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| atttggggagg | ccaaggtgag | tgaatcatct | gaggtcagga | gttcgagagc | agcctgggtca | 20400 |
| acatggcgaa | acctcgtctc | tactaaaaat | acaaaaatta | gctgggtgtg | gcggcagcca | 20460 |
| cctatagtac | cagctactcg | ggaggctgag | gcaggagatt | cacttgaacc | cgggagtgga | 20520 |
| gatggcagtg | agccgagatc | gcgccacttc | actctagcct | gggcaaaaga | gcaaaactct | 20580 |
| gtctcaaaaa | taaaataagta | aataaaagtt | tcttgatcat | agtggttctgt | ttggtagatg | 20640 |
| cctgtttcagc | tacagtgggtg | cagttcatag | aaacatactg | tgctaggata | aagaactgca | 20700 |
| gtaccactga | agctggtttct | ttgctacgtc | ttgcttttga | tttcatttta | cagttttaaa | 20760 |
| agcaaacagt | gtagtctcat | ttttgttgga | ctttaaactt | aacagcgtat | gttcagacag | 20820 |
| ggattgaata | tttgcttttca | gtttggaaaa | ccttctgttc | actgatctga | taacgtacat | 20880 |
| gtttctgaaa | ccaagaaaag | agcagcttga | gagcctgaat | gctgtggggac | atgagcaggc | 20940 |
| gagccctgcc | ttcctggctc | ccccgccgtc | atccgatgtg | tgcacacgtc | tcgagtaacg | 21000 |
| tgtgagagct | gggcctcaca | gcttggggcca | gtacgtgagg | gagtaacagt | ggttggggaaa | 21060 |
| ttggagcaaa | agaacaaagc | cagaatcaga | tgaagaccat | ggaggggttg | tgggcttatt | 21120 |
| tagaagaatg | gatgagaattg | gccatttacc | aaatgggtag | agagctttcta | taaaatttta | 21180 |
| tttaagaatt | ctgtgaagct | agaatcacca | cacaagacat | tttagagagg | tgaaaagaca | 21240 |
| tggatcctgt | tgtcatggag | cttaagtcca | ggctgggggtg | accccagctc | atcactcctg | 21300 |
| ggctgtgccc | tgagcgtgtc | aaggatgaga | catcctggga | gtttttatacg | cctcctctct | 21360 |
| tgtccatggt | aatagtgtga | gccatcagcg | cttcagaca | tgctccatgc | ttaattctga | 21420 |
| aggtctgctg | cttatgaact | ttctgtctct | tcctatagta | cgccctgcat | gtatacaatg | 21480 |
| aagtgatgag | tgttggccag | aaatacggaa | tccggaatgc | tgggtattac | gctcttcgca | 21540 |
| gtctccgaat | tgagaagttt | tttgcttct | ggggtcagga | tataaataac | ctcaccagcg | 21600 |
| ccctggaaatg | tggacgagag | tctcgggtga | aattagagaa | ggtagtgtgt | ttaccacgac | 21660 |
| tccactttca | ctcagcatcc | cgagtagtga | atctgcacta | gactagggaag | aagaactgat | 21720 |
| gtgacaggaa | aagggggaaa | agattgaggc | cttgatgtta | gcatcaggta | aatgaggaca | 21780 |
| agagtgcctt | gagaatgaaa | acttttatagg | ataaaatatc | ttcaaataaa | aacataataa | 21840 |
| tggtggctca | cgctgaatc | ccagcacttt | gggaggctga | ggcgggtgga | tcacctgagg | 21900 |
| tcaggagttc | gagaccagcc | tggccaacat | ggcaaaaccc | gtctctacta | aaaatacaaa | 21960 |
| aagtagggcg | ggcacgggtg | ctcacactcg | taatcccaac | actttggggag | gccaaggcgg | 22020 |
| gcggatcaca | agttcaggag | atcgagatca | tctagctaa | cacagtgaaa | ccccgtctct | 22080 |
| actaaaaata | caaaaaatta | gccgggtgtg | gttgcggggc | cctatagtca | ggagaattggc | 22140 |
| gtgaaccagg | gaggcagagg | ttgcagtgag | ccgagatcac | gccactgcac | tccagcctgg | 22200 |
| gcgacagagc | gagactccgt | ctcaaaaaaa | aaaaaattta | caaaaagtag | ctgggcgtgg | 22260 |
| tggccagcac | ctgtagtctc | agctactcgg | gaggctgagg | caggagaatc | acttgaacct | 22320 |
| aacaggcaga | ggttgccagt | agccaaaatc | gcaccactgc | actccagcct | gtgtgacagg | 22380 |
| gcaagactcc | gtctcagaaa | aaagaaaaaca | tagtaaatag | atgacacttg | gtcagggtcg | 22440 |
| gtggctcaca | actgtaatcc | tagcactttg | ggaggccaag | gcaggaggat | cacttgagct | 22500 |
| cagcctgggc | aatacagcaa | gaccttgtct | ctgaattaca | attgaaaaac | aaacaaaaaa | 22560 |
| accactttat | ttctagtgtt | ctcgtgtcta | aaagactgag | tgctttctgg | gaagctattc | 22620 |
| tgagttaatt | atggtgatgc | attaacatgc | cacgaatatt | tgtacaaact | agtcgtccta | 22680 |
| tagtcagctg | cctaattttt | gtggtttttt | tcttttgttt | ttgattttga | ggtgggggtct | 22740 |
| cattctgtca | cccagggttg | agtgcagtgg | cgcgatgttg | gctcactgca | atgccctctc | 22800 |
| atgctcaagt | gatcctccca | cttcagcctc | ccaagtggct | gggaccacag | atgcacaacc | 22860 |
| atgccagctg | aatttttttg | tatttttgga | aagacagagt | ttcaccacat | tggccagggt | 22920 |
| ggctctgaac | tcctgtgctc | aggtgatccg | ccctcctcgg | cctccagag | tgctgggatt | 22980 |
| acaggcgtga | gacagcacac | cgggccta | ttttttgggt | tttttctgtt | gggcgcatca | 23040 |
| cctgagttca | caagtctgag | accagcccg | ccaacatggt | gaaaccccg | atctgctaaa | 23100 |
| aatataaaaa | ttagctgggc | atggtggcag | gcacctgtaa | tcacagctac | tcggtaggct | 23160 |
| gaggcaggag | aattgcctga | acctggggag | cagagggttg | agtgagccga | gatcatacca | 23220 |
| ttgtactccc | acctgggtga | cagagcaagg | ctccatctcc | aaaaaaaaaa | aaggtaataa | 23280 |
| cccatTTTTG | aaaatataaa | gaaggaaatt | aaaatcaccc | atatTTTTgtc | tatttaattgg | 23340 |
| tagtaactat | tttttttttc | tttcttgaga | cggagtttcg | ttcttgttgt | ccaggcttga | 23400 |
| tgccagtggc | gcgactctag | ctcactgcaa | tctctgctc | cttggttcaa | gcgattctcc | 23460 |
| gtcctcagtc | tcccagtag | ctgtaagcca | tcagctaat | tttgtatttt | ttgtctttac | 23520 |
| caaaatacaa | aaaattaggt | gggtgtgggtg | gcgcactctgt | gggcccagct | acttggggagg | 23580 |
| ctgaagtggg | agaatcactt | gagcatgaga | aggcattttt | gtattttttc | tttttttagt | 23640 |
| agagatgggg | tttctccagg | ttggtcaggc | tggtctcgaa | ctcctgacct | caggagatcc | 23700 |
| ccccgcctta | gcctcccaa | gtgctgggat | tacaggcgtg | agccaccgtg | cctggccata | |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ttatagggcac | actccaccag | aatcttggct | cactgcagcc | tctgcctccc | aggttcaagt | 24060 |
| gattttcctg | tctcagcctc | ccaagtagct | agaactatag | gcacactcca | ccacaccag | 24120 |
| cttatttttg | tatttttagt | agagatgagg | tttgccatcat | ctctgttcaa | ggcgtgagcc | 24180 |
| accacgactg | gccaatataa | aaacattttt | ctaaagtact | ggactgataa | ggtattttat | 24240 |
| taagtgagtg | agttttcttc | ctaaacgttt | ttgttctatc | tggctctgtg | actttatggt | 24300 |
| tataaaatag | gaaacaaaat | gcgtacctct | gttggtacaa | aaattaccgc | ggcgtctttt | 24360 |
| atatttcaca | tgcagttttt | cacatggtag | aaatcgaca | gtttcccaa | agctggcagg | 24420 |
| gttggtgggag | gaggcggtg | tgccccattg | cagtgcaccc | aggggaccct | tcccacggtg | 24480 |
| ctgctctctg | tgccgagggg | ctgagtgtcg | ctggatgact | cggcgtttcc | tttctttctt | 24540 |
| agggcatgga | tttcattggg | cgcgacgccc | tccctgcagca | gaagcagaat | ggagtgtata | 24600 |
| aacgcctcac | catgttcatc | ctggacgacc | atgattcaga | cctagacctt | tggccttggt | 24660 |
| ggggagagcc | catttaccgg | aatgggcagt | atgttggcaa | gaccaccagc | agtgcctaca | 24720 |
| gctacagcct | ggagcgccac | gtttgcctgg | gctttgtgca | caatttttct | gaggacacgg | 24780 |
| gggaagagca | agtgggtgaca | gcagatttca | tcaaccgggg | agagtatgag | attgacatcg | 24840 |
| cgggataccg | cttccagggc | aaggccaagc | tctacctgt | cgcctccctc | ttcaccaga | 24900 |
| agcgccgaaa | ggatgacatg | gagctgagt | acttacatgg | gaagtgatgc | caccagggca | 24960 |
| gcctcacctc | ctccccatca | tcttgtccta | gagtgggctg | caccttgagg | cttctcttcc | 25020 |
| ttccgcctct | gttccctctt | tggagccttt | gcctcccatc | tcttatctcc | ttgatataat | 25080 |
| tttgaacttg | acctaactta | aacttttttg | ctctgcagcc | ttccttgccc | ttccacctcc | 25140 |
| tcctcctaag | attcactctg | ggctcttctt | cccttcccac | ccctcactca | gcttctctgt | 25200 |
| gtggcaggag | gtatgtctga | caggacgaaa | gcaagctcca | ctgtggacat | gagtgttggt | 25260 |
| gacagctgct | ttcaaattct | gcactctcaag | gcagggcaag | cgggggtggg | gcaggtctca | 25320 |
| gggcacgagt | ccctctccct | tgggttccat | tttcttggag | cagcctatta | gttctggtgg | 25380 |
| ggttgcccgt | tgtcggatgc | agccctgagg | ggcagctcgt | gcctgcagcc | cggcagctcg | 25440 |
| ttctcctgtt | ctgctgtgct | gtgggctggc | actcgatacc | tctggcaaga | ggatgattat | 25500 |
| ctacctcact | gataagaggg | atcgcatgga | cgttctctgg | tctgtagtgg | agacaagcag | 25560 |
| ttaacctagc | accatcctca | tcctccctgc | agaagccatt | agcagacctt | tggggccagg | 25620 |
| cagcctccct | ataattttct | tcactctctt | ctaactctca | taataagggt | gctttttctt | 25680 |
| tcttagttga | gtaaacagct | aagccacagt | gtttgaaagg | gaaaaacccat | attgccttgt | 25740 |
| gtgttgcttt | tcccagtcga | aagggtctga | ccttagaagg | tccccaccag | tgatgctgag | 25800 |
| tgttctgcta | tggaaacaat | gctgtctttt | cttcagctgt | ccaaagttca | gccgttcttc | 25860 |
| cttccccctt | tcccagtgcg | tttgactttg | tcaggtcagc | ctcacttgte | cctttcacag | 25920 |
| ttggcccata | aagtcatgtt | tctctccctt | tagaataggg | aggggaagg | atcaggtgtg | 25980 |
| ttgtcctggg | cctttcaacc | ttgcgggctg | tgtgagttc | cagagagctg | ccggaattcc | 26040 |
| aggtttgact | ctccagcaca | gagcagagct | acacagaggt | gacccacgtt | agtccactga | 26100 |
| gagttctgag | tccaaagggg | gtacgttgca | taaggctaga | gaccgctttt | cctcctttcc | 26160 |
| ccccaggctc | tttgttttcc | tccacccacc | cttccatctc | ctctggagca | ggagacaatg | 26220 |
| tgggtgcccc | gaagtgcctt | gcgctttcag | gcagtgtctc | tgttttccca | aggtgaaact | 26280 |
| tagatatcat | ggactgttgt | ccagcctcaa | tgcttcattt | tccccttgca | tatcaactgc | 26340 |
| cctaattctga | cttttttttaa | gtgcaaataa | actgctataa | gacatttttg | ttagtataaac | 26400 |
| tctagccttt | ggcgtgtttg | tatcttgga | gcattagctc | tgataggtct | ataagtgtat | 26460 |
| taagggacat | ccttccattt | cattagagca | gcttaaaatg | ctcaggtgtc | tgccttctct | 26520 |
| ggtgtttctt | tgggatctct | gtttaccac | ttacgctggc | tccttctaga | catttcttgc | 26580 |
| cacttcccc | actagaccac | tcctagtgat | tactgacttt | agtgcctaaa | ccttttttga | 26640 |
| aggttctggt | tggcttggtt | gaggagcata | tgattagaat | tctgtttggg | ggtctagttg | 26700 |
| tcttgaggca | agtatgtact | taactagccg | agagatgctg | cctctaggca | gagaggagga | 26760 |
| gaggtgttgc | cggctggagg | gccaaccagt | gaacaccagc | tgtgaaggcc | ttgggagagg | 26820 |
| aggaacaggc | ccttgggcag | atgcaggcat | taccagcagg | gagcagactt | acctccgaag | 26880 |
| atggagacag | gtgactgaga | gctgcaggcc | tcctctgctc | ttccaaacac | gtagcatttg | 26940 |
| cacccctcca | aagccatctt | tgtaaaggaa | aacgtatttg | taattgaatc | cagaagaatt | 27000 |
| tagttacaca | tagacataac | tcttcaacct | taactatggc | aatacatttg | tgctttaact | 27060 |
| gttacatagc | agtatcacca | cttaccagga | tccaaatcga | aataataaaa | gctgtctcca | 27120 |
| tagtttaaaa | tcgaatagtg | ccatcatcac | agtatattag | tcaaatagaa | gcttcatcag | 27180 |
| aatgtatcc | cacatagagt | tttaagactt | ggattctctt | ctgcccttgt | taatctccaa | 27240 |
| ctaattacta | cagattgaca | cgtttttaat | tagctgtcct | ttgtaagaag | tcaggaaatc | 27300 |
| tgatgctgtg | tccaaaatta | tgcactgttt | gttgaagtag | aaccagaaat | cctgacctcc | 27360 |
| tgttaaatga | ctcagtttcc | ccctctgtag | caacagactg | cttgtcttgc | taggagagga | 27420 |
| ggatgggggg | ctgagcactc | aggctgtcca | ttgaaacccc | ttgtccatga | atagggtcat | 27480 |
| actcctaaga | ctgatggggg | gttgatcttc | taggacatca | cttgtttatt | cagtgcacca | 27540 |
| aacacagatt | tctcttctag | cacttttagag | ttgatccttg | aagtctctcc | tggttcattc | 27600 |
| aaatacaagc | tgtgtgagtc | tgggtggttt | ctgtgattgg | tctaattgtga | gctctttgaa | 27660 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| cagacagatc | tgacagtga | tgactctccc | ctgcttctgg | cataactgct | ttgcctctgt | 27720 |
| ctagtgtcca | agcatcttag | ctgttcaaga | ggagagggca | gcataacttc | ctgaccaccg | 27780 |
| gtgtcagata | tcagagcatt | ctggactcct | gagaggcagt | ggcctcttga | gtgaacaggg | 27840 |
| gagggcagta | gatgccccag | atccagagcc | gtggctgcaa | atccagcagg | aataaggagg | 27900 |
| gacaaccaca | gcctcctcat | ccatgtgtca | tttccaagg | tttgcttgt | gtctcagctc | 27960 |
| attctgggca | gcacgtttgt | cttctgtccc | tagagatttg | aaggattttg | gactcttgtg | 28020 |
| aatgggtgac | tggacttggc | tttacagagt | tgggtgcttt | tttctctctg | caattacctg | 28080 |
| tcatagcatt | ttgtgtcac | cacgaaggat | ggtctctgcc | ttctcttgtc | ggtgtatgcc | 28140 |
| atctgaacct | aggaacacaa | agtatatttg | cctcaaacgg | agaccaggg | ttgccagttt | 28200 |
| tccgtgggcc | ttccccctccc | ttgaaatgtc | tttaattacc | tccccctcat | cgtcaggcca | 28260 |
| cgtgtgactt | ctgttcttag | cactgccagg | gtcattgact | tccatctaag | cttgcatacag | 28320 |
| gaagatgttc | cttctgtgat | cattgggtact | gaagccagaa | aagctctcat | tcaggaactc | 28380 |
| tgaagagcaa | aaagggacaa | acactaactg | ctgagctggg | ccatttgatc | tcctttcacc | 28440 |
| ttgcattgct | gtcagagcac | cttgtatgat | ggcaggacag | gctccagcag | agagaactgc | 28500 |
| acagtgacca | ctgtattttt | cacgctcttc | cagggatccc | tgtccccga | cattgaagag | 28560 |
| atctcattca | ggccagagac | acagagacca | catagcccag | tgattaaacc | ccggtttcac | 28620 |
| tctggcccca | ggagtggagc | ctggccactc | ctggttggtt | ctcactggga | ggcccactgg | 28680 |
| ccttggtatca | tctcctcatg | cacaccggga | gttttacctg | cttgcttgct | ttcctggact | 28740 |
| gctgtttgca | agaaagtaac | taaaacatga | aaagtaaacc | tccagcttcc | acagtatatt | 28800 |
| acctgccgtt | gcatgcattt | gaaagttagc | ctcctccctt | gccaccgtct | tggtggcagt | 28860 |
| agcgatgcaa | gaatgatggg | agctttccga | gagcgttcag | tgtttctactg | aagacaggac | 28920 |
| ccatagcctt | catttctggc | tctgtgtctc | tctgtgcata | tggaacacatt | tcctggcatt | 28980 |
| tgcttgagtc | tacaccactt | tttgagaacc | tgaatatagaa | gggaatcttc | tgtggcccac | 29040 |
| agtctccata | ttggcactag | aagactggcc | tggcggagga | atttgcgttg | gcttgctttc | 29100 |
| aggggttagc | tacaagattc | agctttatat | ctctgttgct | tcttggccag | tgtagtcaat | 29160 |
| aagggtcttc | tttaacatct | aagatagagg | tttggttggtc | cgggcgtggt | cgcttactcc | 29220 |
| tgtaatccca | gcactttggg | aggcccagtg | agggtgggaga | attgcttgaa | cccaggaggc | 29280 |
| agaggttgca | gtgagctgag | attgcaccac | tgcactccag | cctgggtaac | agagtggagac | 29340 |
| tcttgtctca | aaaaaaaaaa | aaaaaaaaatc | taagatagag | gtttgggtcaa | cagtgccttaa | 29400 |
| taataaataa | gaacctcctg | ccattctaat | tttctgtctg | caccccatcc | cccacacacc | 29460 |
| cctcacgaac | attgatataa | gcagtattaa | cacagtataa | agaatgttca | ccttgcatat | 29520 |
| gtcatttcag | gcacatggat | tcaggagaag | cacagttgag | tggaagaaat | ggtagacttg | 29580 |
| tgaggcttgc | cccaggcctt | gtgtacacgc | aataagtggg | gagccatggg | tctctccgtc | 29640 |
| agcgctccc | tccccgccac | cacttcaggc | caacaattta | aggtgctgag | ttgtaaggct | 29700 |
| cctccattgt | cagtacaggg | ctcgcttttg | tagccctgat | cactaccagt | acacttttca | 29760 |
| agacaactga | gtattttttg | atgccttttg | cttccctttg | tccatgaaac | atgaagagtt | 29820 |
| gtttatgggt | cttgactttc | ctgagcagag | tgtctgcatc | tcttgagag | ttacacattt | 29880 |
| cttcatgagc | catttttctc | attcttagat | gcacctgttt | ttatcctttg | cagaccatct | 29940 |
| tctgccttct | tattttcctg | tctgtcaaag | acagaaatta | caggagatag | ggagggtttt | 30000 |
| ttagcatctc | tttcaaaaga | tgtatgtcag | aatttccttt | gcacaccaag | aactggagct | 30060 |
| tagagcccca | ctattctcta | agccagggtt | tagtgcttta | cactccagaa | tgtcagatgg | 30120 |
| tgggtgcaga | ttggaagaaa | gagaaaagtt | catctcggtg | tgtgggttcc | catccgcccc | 30180 |
| acatagcctc | tccttcttcg | gaacaatggg | cgtggggtag | aaagctcttt | cagtgaaggg | 30240 |
| tgttctagca | gtcagtttaa | cactttactc | tccagtcaac | acttgggaca | tataaaaatg | 30300 |
| ccattgtaac | tactgtagag | tcctgtgact | catcgtttgt | gtttgtcaat | ttgcagttca | 30360 |
| gcttagccct | tcctgtttcc | tgtgtagtta | caatctggcc | ctgaagacat | ccgaggcact | 30420 |
| tcagtaagtg | ggatcttttc | tagagatcct | gggtgacttt | gggtgcacag | ggtgaccgag | 30480 |
| catttctgcc | cctgtgaatg | tggcactaac | actgtgactt | gtctccacca | agcaagggtt | 30540 |
| ccactgagtt | tcttctcatg | ttactgggtt | tgtaaatgaa | taaacacatt | ttaactactc | 30600 |
| ttgcacggct | gcttgtgaaa | | | | | 30620 |

<210> 12041

<211> 595

<212> DNA

<213> Homo sapiens

<400> 12041

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| ctgagcccag | gcgtttttatc | aaaaggacct | ccttttggttc | ccatgagctc | ctttgactag | 60 |
| ctggtaaata | tctcttcctt | tgatctcaaa | gtaattttta | tgtcttaaaa | aatgtagtat | 120 |
| tgctcccat | caaataatt | gaactaaagc | aggctgactt | cccacacctg | acactgtagc | 180 |

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|-----|
| aagagcacac | ataagccact | tggaattaat | ctcaagagggc | tgaacttgct | cattttttatt | 240 |
| tctgttcctc | ttcccaccca | caaatcaacc | tgtccatttg | tagtgggcat | acgagctggg | 300 |
| tctgtccaac | gaggagccgg | ttagtatccc | gctacatgcc | tgccaacact | tctacctcct | 360 |
| gactcgcccc | ttggagaccc | ctctgcagag | cagcacacca | agtgaggact | tgcaactttt | 420 |
| taaaaaatct | tgttttcttg | ccagtatcct | gtcctctgaa | aaggaaaact | ttctgctaag | 480 |
| gacagcctgt | gtctgaaaga | gtctttcatt | tctagagcat | gttacaggga | ggtaggacca | 540 |
| attctgactt | ttcttttatta | actctttatg | aaaggatggc | caaaatttcc | attaa | 595 |

<210> 12042

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 12042

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|------------|------|
| gttccatact | atagaaaaat | gtaaagtttt | aaaattattt | atccagtggg | tgcaaaattg | 60 |
| aatcaaaaag | gggattaagg | gaagaaaaca | gatagatata | caaataatat | aggcattcat | 120 |
| tctgttaata | ttgagtaatt | actgtttgtc | agacactggt | ttaggtatga | ggaaatgaca | 180 |
| gtgagcaata | caaaggccac | attctcatgg | agtaaaattc | cagaggtgga | gacatgtaat | 240 |
| taataacttaa | atataaaaaca | gtagattttc | taaacgcaga | aaacggaaga | gtaacaagaa | 300 |
| actaaatcaa | ggagcattat | atagcctaga | ctgcagagac | tcaatataat | aaagttggcg | 360 |
| attcttcccta | attatcaaat | ttactgcaat | tccagccaaa | atgtttcagt | ggtttttttt | 420 |
| gtttgttggt | tttggttttg | ttttgccctt | tagcttcaca | ggtttgttct | gaaatttatg | 480 |
| aggtataaat | tcttaagagc | agcaagaaaa | atctcgaatc | tatttgtaga | aactgcata | 540 |
| gatgatgggt | cataccagta | gagagaaaaga | ttggatttgg | gggtattact | agtagtaagg | 600 |
| ggattcacta | gtagtaaggg | aaatgcaaaa | taaaatcaca | ttgaactagt | tcaaaatcat | 660 |
| cacattggca | aaagcattag | agtgcccaatt | actggaaaaga | tgtggagcaa | taggaacact | 720 |
| catacgggtgc | tataggaagt | agttgtgttt | agcataat | ggcaatgtct | agtaaagttg | 780 |
| aagatgtgaa | taatctttga | cccagcaatt | ccatgtttaa | acctctacat | agtctctcct | 840 |
| cgtgtttcaa | ggagatacat | atgatgggtcc | attgcagaac | tgtgagaatg | agaagttgaa | 900 |
| agcaatctaa | ccattaggtt | aaatacaaga | tagaatgcaa | actaaaatga | ataactagag | 960 |
| atatttctgt | caacatgggt | aaacctcaaa | aatagtatta | atgaaattga | actacagact | 1020 |
| attttatata | atacagtata | acgtacaatt | tcaaaacatg | caaattagt | ttatgtattt | 1080 |
| ttgtcatggc | taaatactat | ataaaaagga | tctaaaagaa | ttaataaaat | aatcatcaga | 1140 |
| ttcagaacag | tggtgacctg | cagggagaaa | gacaactgag | attggggaaa | ggatgcaaat | 1200 |
| gaaaatacct | ttaattattc | atctctttta | aaaataagca | aatactgtat | agccaattct | 1260 |
| taaaatttga | taaagctggc | tgtgagtata | tgagtcagtt | cttactctct | gtatctttct | 1320 |
| gtataaacta | tttcataatg | caaaaaaata | aagaatattt | aatga | | 1366 |

<210> 12043

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 12043

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|------------|-----|
| gttccatact | atagaaaaat | gtaaagtttt | aaaattattt | atccagtggg | tgcaaaattg | 60 |
| aatcaaaaag | gggattaagg | gaagaaaaca | gatagatata | caaataatat | aggcattcat | 120 |
| tctgttaata | ttgagtaatt | actgtttgtc | agacactggt | ttaggtatga | ggaaatgaca | 180 |
| gtgagcaata | caaaggccac | attctcatgg | agtaaaattc | cagaggtgga | gacatgtaat | 240 |
| taataacttaa | atataaaaaca | gtagattttc | taaacgcaga | aaacggaaga | gtaacaagaa | 300 |
| actaaatcaa | ggagcattat | atagcctaga | ctgcagagac | tcaatataat | aaagttggcg | 360 |
| attcttcccta | attatcaaat | ttactgcaat | tccagccaaa | atgtttcagt | ggtttttttt | 420 |
| gtttgttggt | tttggttttg | ttttgccctt | tagcttcaca | ggtttgttct | gaaatttatg | 480 |
| aggtataaat | tcttaagagc | agcaagaaaa | atctcgaatc | tatttgtaga | aactgcata | 540 |
| gatgatgggt | cataccagta | gagagaaaaga | ttggatttgg | gggtattact | agtagtaagg | 600 |
| ggattcacta | gtagtaaggg | aaatgcaaaa | taaaatcaca | ttgaactagt | tcaaaatcat | 660 |
| cacattggca | aaagcattag | agtgcccaatt | actggaaaaga | tgtggagcaa | taggaacact | 720 |
| catacgggtgc | tataggaagt | agttgtgttt | agcataat | ggcaatgtct | agtaaagttg | 780 |
| aagatgtgaa | taatctttga | cccagcaatt | ccatgtttaa | acctctacat | agtctctcct | 840 |
| cgtgtttcaa | ggagatacat | atgatgggtcc | attgcagaac | tgtgagaatg | agaagttgaa | 900 |

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|------|
| agcaatctaa | ccattaggtt | aaatacaaga | tagaatgcaa | actaaaatga | ataactagag | 960 |
| atattttctgt | caacatgggt | aaacctcaaa | aatagtatta | atgaaattga | actacagact | 1020 |
| atttttatata | atacagtata | acgtacaatt | tcaaaacatg | caaatttagtg | ttatgtattt | 1080 |
| ttgtcatggc | taaatactat | ataaaaagga | tctaaaagaa | ttaataaaat | aatcatcaga | 1140 |
| ttcagaacag | tggtgacctg | cagggagaaa | gacaactgag | attggggaaa | ggatgcaa | 1200 |
| gaaaatacct | ttaattattc | atctctttta | aaaataagca | aatactgtat | agccaattct | 1260 |
| taaaatttga | taaagctggc | tgtgagtata | tgagtcagtt | cttactctct | gtatctttct | 1320 |
| gtataaacta | tttcataatg | caaaaaaata | aagaatattt | aatga | | 1366 |

<210> 12044
<211> 397
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12044 | | | | | | |
| atgagaaatt | tgcattgtaa | atacttcata | tagtctgtca | aatatagcag | atattcaata | 60 |
| aatgataata | gctaacaatg | attgagtgcc | cactacacat | caggcactgt | cttacatact | 120 |
| ctacatatat | taactcatct | actcctcaca | aaacaagatt | ccttattgga | caaagtggag | 180 |
| cattcctgca | aaacaccagt | tcagaatttg | gaaaatctaa | aatgtttaga | acataaatgg | 240 |
| cagtctttgt | actgtagctt | agtagttgtt | atgaagtcag | gtagtgggac | tataaactg | 300 |
| acagccagtt | ttaggaagtt | tctacagata | atgaattgga | taagccaatt | aagaaaaata | 360 |
| gaattcactg | ggaagaatgc | agaacctaca | tttaa | | | 397 |

<210> 12045
<211> 397
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12045 | | | | | | |
| atgagaaatt | tgcattgtaa | atacttcata | tagtctgtca | aatatagcag | atattcaata | 60 |
| aatgataata | gctaacaatg | attgagtgcc | cactacacat | caggcactgt | cttacatact | 120 |
| ctacatatat | taactcatct | actcctcaca | aaacaagatt | ccttattgga | caaagtggag | 180 |
| cattcctgca | aaacaccagt | tcagaatttg | gaaaatctaa | aatgtttaga | acataaatgg | 240 |
| cagtctttgt | actgtagctt | agtagttgtt | atgaagtcag | gtagtgggac | tataaactg | 300 |
| acagccagtt | ttaggaagtt | tctacagata | atgaattgga | taagccaatt | aagaaaaata | 360 |
| gaattcactg | ggaagaatgc | agaacctaca | tttaa | | | 397 |

<210> 12046
<211> 5983
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 12046 | | | | | | |
| cctacgcctt | ccagcccaag | tgcacctacg | tcgtgagtg | tgccctccta | cctcggtgtc | 60 |
| cccagccccc | cgccctcctc | acccttctct | ggactcgtgg | atgtggccca | cagagccctg | 120 |
| cccttaagca | tctcctcatc | acctctctct | ctgtccttag | aacatgctca | ccttcacttt | 180 |
| ggagcatgga | gagtttgaag | atgggaaggg | caagtgtccc | tatgaccag | ctaagggcca | 240 |
| tgctggccct | cttgtgggtg | agtggctgcc | ccccatgcag | gctgggtgag | tccttggggc | 300 |
| ttggttccac | ttgggtctgt | gttgggcggg | tgtgtccata | cctcatgtgt | ggcctagctg | 360 |
| acctctgtct | cccatagatg | gtgagctgta | ctcgccacac | ctcaacaact | tcctggggc | 420 |
| ggaacccatt | atcctgcgta | acatggggcc | ccaccactcc | atgaagacag | agtacctggc | 480 |
| cttttggtct | aacggtgagc | caccgggggg | cctgtgggag | ccatgggtgg | gaggtcccc | 540 |
| ggggcccgag | ccctccctgc | tgacctcctc | cccttcccac | agaacctcac | ttttaggtct | 600 |
| ctgcctatgt | acctgagagt | gtgggcagct | tcacggggga | cgacgacaag | gtctacttct | 660 |
| tcttcaggga | gcgggcagtg | gagtcgcact | gctatgccga | gcaggtgggtg | gctcgtgtgg | 720 |
| cccgtgtctg | caaggtaccg | agtctcacag | cggtggggcc | tgggagccct | gctggcccg | 780 |
| cggggctgac | cggcagtgct | cccttgccgt | ctgccagggc | gatatggggg | gcgcacggac | 840 |
| cctgcagagg | aagtggacca | cgttcctgaa | ggcgcggtg | gcatgctctg | ccccgaactg | 900 |

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|------|
| gcagctctac | ttcaaccagc | tgcaggcgat | gcacaccctg | caggacacct | cctggcacaa | 960 |
| caccaccttc | tttggggttt | ttcaagcaca | gtgggtgagtt | ggccagggct | cccacagagt | 1020 |
| ggggaggagc | tggggttcag | gtcagggacg | gtgcatgggt | gggagcctgg | accaggcctc | 1080 |
| agaggcagtc | ccggaagcca | ggtgtccaga | agccaaggag | aatgctggca | cctgccccct | 1140 |
| tcagagctgc | ctgtgaaggg | gcagggcccc | atgccagggtg | gcacttgagc | tgccagggca | 1200 |
| ttctggtacc | catggccagt | ttgtgccagg | ccctgccttc | ctgctgcttg | cccttagctg | 1260 |
| ggggtgggaa | gagataaggt | gggtacctga | ccctgggctc | cctctcgctg | tgacaggggt | 1320 |
| gacatgtacc | tgtcggccat | ctgtgagtac | cagttggaag | agatccagcg | ggtgtttgag | 1380 |
| ggccccata | aggagtacca | tgaggaagcc | cagaagtggg | accgctacac | tgaccctgta | 1440 |
| cccagccctc | ggcctggctc | ggtgagtgtc | agggcaggga | tgcatctccc | caccagctg | 1500 |
| cggtgccatc | ccaccctgct | gatggcctgc | ccccacacc | ctgccccag | tgcatataca | 1560 |
| actggcactg | gcgccacggc | tacaccagct | ccctggagct | acccgacaac | atcctcaact | 1620 |
| tcgtcaagaa | gcacccgctg | atggaggagc | aggtggggcc | tcggtggagc | cgccccctgc | 1680 |
| tcgtgaagaa | ggggcaccaac | ttcaccacc | tgggtggccga | ccgggttaca | ggacttgatg | 1740 |
| gagccaccta | tacagtgtctg | ttcatttgga | caggtgggtg | catgggtatg | caggcatggc | 1800 |
| tgctcaaggc | tgggcagaag | cccgtgtgcc | cagggcaggg | agatttgag | ctgccccacg | 1860 |
| gccttggtcc | ctctcattta | caccttctcc | tctgcacccc | ccaggagacg | gctggctgct | 1920 |
| caaggctgtg | agcctggggc | cctgggttca | cctgattgag | gagctgcagc | tgtttgacca | 1980 |
| ggagcccatg | agaagcctgg | tgctatctca | gagcaaggta | gtaagttggg | ccctatctgc | 2040 |
| cactgtcccc | agcactatcc | catctcactc | tctccatctg | gctgcttctc | ccagttgggc | 2100 |
| ctatgtgctt | ggccagtgtca | gagttaggaa | cacacacaca | tgtagatgca | caccttgctc | 2160 |
| aacttggggg | gggttcctgg | aaacgagaat | gaaaacagaa | tggaatctgc | actgcacagg | 2220 |
| gccattatat | atagccagggt | cacggggctg | cgctcccagc | atcaagcctt | ggcaactgct | 2280 |
| cccatgtttc | tttcagaccc | tccaagctgt | gctgtggttc | tggtctctggc | ctcttccttg | 2340 |
| accatgcccc | tgtgaccaga | cctcccaggc | tgtgagatgt | ttatgatgcc | ctcaccatgg | 2400 |
| tggttttcc | tccagccccc | atttccgtga | ctgtttccct | gaagtgcttg | cattataccc | 2460 |
| ttgtgcaata | ctcttttttg | tttttttttg | agatggagtc | tactctgtc | accaggcta | 2520 |
| gagtgcagtg | acgcgatctc | agctcactgc | aacctccacc | tcccagggtg | aagctattct | 2580 |
| tatgcctcag | cctcctgagt | agctgggatt | acagggtgct | gccactatgc | ccagctaaag | 2640 |
| gttttttgtt | tttgtttttg | ttttcttttg | gatggagtct | cactctgtcg | cccaggctgg | 2700 |
| agtgcgggtg | catgatctct | gctcactgtc | acctccacct | ccgggttca | agcaattctg | 2760 |
| cctcggcctc | ccaagtaact | gggactacag | gcacgtgcca | ccatgccag | ctaattttt | 2820 |
| tttttttttt | tttttttgag | atggagtctc | gctctgtcac | ccaggctgga | gtgcagtggc | 2880 |
| gcaatctcgg | ctcactgcaa | gctctgcctc | ccagggttcac | accattctcc | tgccctcagc | 2940 |
| ttccatgtag | ctgggactac | aggctcccat | caccacgcct | ggctaatttt | ttgtattttt | 3000 |
| agtagagacg | gggtttcacc | gtgttagcca | ggatgggtctc | gatctcctga | ccttgcgatc | 3060 |
| cgcccgaact | agcctcccaa | agtgtctggg | ttacaggcgt | gagccactgc | gcctggccag | 3120 |
| ccggctaatt | tttgtatttt | tagtagagac | aaggttttac | catgttggcc | aggctggtct | 3180 |
| tgaactccta | acctcaagtg | attgcccac | ctcagcctcc | caaagtgtcg | ggattccagg | 3240 |
| catgacctgc | tgttcctagt | tgccctgtgc | aataactctg | tggtcatgtt | gctacacctc | 3300 |
| ctgaactttg | atttgttttg | cttttaccag | ctattatgac | tcaaaattgt | cccctagaac | 3360 |
| atggaataat | ggcagaaaga | aagtgtgtgg | ttgaataaac | acacagattg | gcatccaccg | 3420 |
| ttgaaacagg | aaaacatctt | atgttatgct | gctgctgttg | tgagggctga | tgggccttga | 3480 |
| aatgtatttc | ctgcactatg | tgtgtgtgag | tgtgtgtgat | tatacttttt | ggcctcacag | 3540 |
| ccccatcatc | ccttttctaat | aacgtcacgt | cgataagggg | cttaggattg | catctggcct | 3600 |
| gtgtaagccc | tctgagttct | gcgggtctta | gagttccctt | ttcagcacta | tagctctgcc | 3660 |
| ttgttccctt | gttccctcct | ctggcgcccc | gtgctgtgcc | ccctgcagga | gtccaagctg | 3720 |
| tccccatgct | gcgttctggt | ccggccgccc | ctcccgtggt | gtggccctgg | ccgaccccc | 3780 |
| tcttgccccc | cgcttttctc | gcagaagctg | ctcttttgccg | gctcccgcctc | tcagctgggtg | 3840 |
| cagctgcccc | tgcccgactg | catgaagtat | cgctcctgtg | cagactgtgt | cctcgccccg | 3900 |
| gaccctattt | gcgcctggag | cgtcaacacc | agccgctgtg | tgcccggtggg | tgccactctt | 3960 |
| gggtgagttg | ggctctacat | aggccaggac | ctccagggac | tcagggtggg | tgagccagg | 4020 |
| ctgctgatgt | accctacatc | ccctaccaga | tctctactga | tccagcatgt | gatgacctcg | 4080 |
| gacacttcag | gcatctgcaa | cctccgtggc | agtaagaaag | gtgagctttt | tcatctccctg | 4140 |
| cgcatcgggc | tgagccctgg | accagagctg | gagtttctctg | tctcctcttc | cccagccctg | 4200 |
| ctttcctgca | ctaacatgca | ctctgttttc | tctgccacta | cagtcaggcc | cactcccaaa | 4260 |
| aacatcacgg | tgggtggcggg | cacagacctg | gtgctgccct | gccacctctc | ctccaacttg | 4320 |
| gcccattgcc | gctggacctt | tggggggccg | gacctgcctg | cggaacagcc | cggttccttc | 4380 |
| ctctacgatg | cccggctcca | ggccctgggt | gtgatggctg | cccagccccg | ccatgcccgg | 4440 |
| gcctaccact | gcttttcaga | ggagcagggg | gcgcggctgg | ctgctgaagg | ctaccttggtg | 4500 |
| gctgtcgtgg | caggcccgtc | ggtgaccttg | gaggcccggg | ccccctgga | aaacctgggg | 4560 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| ctggtgtggc | tggcgggtggt | ggccctgggg | gctgtgtgcc | tgggtgctgct | gctgctggtg | 4620 |
| ctgtcattgc | gccggcggt | gcgggaagag | ctggagaaaag | gggccaaggc | tactgagagg | 4680 |
| accttggtgt | acccccctgga | gctgcccgaag | gagcccacca | gtccccctt | ccggccctgt | 4740 |
| cctgaaccag | atgagaaaact | ttgggatcct | gtcgggttact | actattcaga | tggctccctt | 4800 |
| aagatagtag | ctgggcatgc | ccgggtgccag | cccgggtggg | ggcccccttc | gccacctcca | 4860 |
| ggcatcccag | gccagcctct | gccttctcca | actcggtctt | acctgggggg | tgggcggaac | 4920 |
| tcaaagtcca | atgggttacgt | gcgcttaca | ctaggagggg | aggaccgggg | agggctcggg | 4980 |
| cacccccctg | ctgagctcgc | ggatgaactg | agacgcaaac | tgcagcaacg | ccagccactg | 5040 |
| cccgaactcca | accccgagga | gtcatcagta | tgagggggaac | ccccaccg | tcggcgggaa | 5100 |
| gcgtgggagg | tgtagctcct | acttttgcac | aggcaccagc | tacctcagg | acatggcacg | 5160 |
| ggcacctgct | ctgtctggga | cagatactgc | ccagcaccca | cccggccatg | aggacctgct | 5220 |
| ctgctcagca | cgggcactgc | cacttggtgt | ggctcaccag | ggcaccagcc | tcgcagaagg | 5280 |
| catcttcttc | ctctctgtga | atcacagaca | cgcgggaccc | cagccgcaa | aacttttcaa | 5340 |
| ggcagaagtt | tcaagatgtg | tgtttgtctg | tatttgcaca | tgtgtttgtg | tgtgtgtgta | 5400 |
| tgtgtgtgtg | cacgcgcgtg | cgcgcttgtg | gcatagcctt | cctgtttctg | tcaagtcttc | 5460 |
| ccttggcctg | ggctctcctg | gtgagtcatt | ggagctatga | aggggaagg | gtcgtatcac | 5520 |
| tttgtctctc | ctacccccac | tgccccgagt | gtcgggcagc | gatgtacata | tggaggtggg | 5580 |
| gtggacaggg | tgtgtgtccc | cttcagaggg | agtgcagggc | ttgggggtgg | cctagtcctg | 5640 |
| ctcctagggc | tgtgaatgtt | ttcaggggtg | ggggagggag | atggagcctc | ctgtgtgttt | 5700 |
| gggggggaag | gtgggtgggg | cctcccactt | ggccccgggg | ttcagtggta | ttttatactt | 5760 |
| gccttctctc | tgtacagggc | tgggaaaggc | tgtgtgaggg | gagagaagg | agagggtggg | 5820 |
| cctgtgtgtg | acaatggcat | actctcttcc | agccctagga | ggagggtctc | taacagtgtg | 5880 |
| acttattgtg | tccccgcgta | tttatttgtt | gtaaatattt | gagtattttt | atattgacaa | 5940 |
| ataaaatgga | gaaaatgaaa | cgattgctct | gatggggcta | aga | | 5983 |

<210> 12047
 <211> 486
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12047 | | | | | | |
| aaaccgtgga | gcgcgccccg | gcccgatggc | tcacgcctgt | aatcccagca | ctttgggagg | 60 |
| ccaaggtgag | cggatcacga | ggtcaagaga | tcgagaccat | cctggcgaaa | ccccgtctct | 120 |
| actaaaaaat | acaaaaaatt | agccgggctg | ggtggcgggc | gcctgtagtc | ccagctactc | 180 |
| aggagtctga | cgcaggagaa | tcgcttgaa | ccgggagggc | gaggttgag | tgagccgaga | 240 |
| tcgcgccact | gcacacaagt | ctgggtgaca | gcgagactcc | gtctcaaaaa | aaaaaaaaaa | 300 |
| aaaaaaaaag | accgcggagc | gcgtggcgcc | tccttgccct | agggactagg | ggcggtaaa | 360 |
| agaggaggct | gcgaggtcgc | tggacggctg | ggtcattggc | aaggtaacgg | gaaagctccc | 420 |
| gaccggaccc | agctgcctca | tccccacacc | ctgcaaggcc | aggcggcccc | gcggccctcc | 480 |
| agcggc | | | | | | 486 |

<210> 12048
 <211> 2718
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|-----|
| <400> 12048 | | | | | | |
| atctgcaagg | gggaaacagg | atcttggcag | caatcctttc | attactaaag | cttcctttct | 60 |
| tttcgggtac | agtgaaaaga | gccaaggctg | tgtgaccccc | tcatacactta | gccaggcgta | 120 |
| tggctcctgg | ttctgaggct | gccagaaagc | atcttagcaa | tttgtgtttg | gatggtccat | 180 |
| gcctgactat | tctaggctgg | aggttcctaa | agagtaacaa | gaggaagaga | aacaagaatc | 240 |
| tctgacactt | gttgagaata | gagcacagtc | ccatttgttt | gaaaagagac | accaggcagc | 300 |
| catgtttatg | tgccagaaat | gcattccacc | tcaaggagga | cttaatttat | ggaccctgtg | 360 |
| gtgccaggct | gagctgggca | agatctttct | caggacaaac | tctgcatgac | agctaaaagc | 420 |
| ctggaaacta | aaggatttca | tgtagtaaac | tatcttccaa | cccctgtaga | catcagacca | 480 |
| caggatgagg | tttcagaagg | tcataaggca | gaatagttaa | gcctacaggg | cttacagtct | 540 |
| gacagacctg | ggttcagttc | ttgggtcttc | atcactagtt | ttgtgacttc | gggaagatga | 600 |
| ctcccgagc | ctcagtgagc | ctcagttact | tcatatgtaa | atgaagtaat | actatctact | 660 |
| tcacaaggct | gttgaaagga | ttaaattggag | aatgggtgta | aaacccttag | tgcagtgcgc | 720 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tgcacacaca | gtagatgccg | aacgtgtgat | gttggcacta | cacaatgtgt | aatcccaatc | 780 |
| aggcagagct | aggcaggcaa | atctaatacca | ggatcctttgt | aaggggactg | agaaccagag | 840 |
| actggagaaa | gccagtgtaa | acaccatgag | caaaggagca | agagaagggg | catttgtgtaa | 900 |
| gtaggagatg | gagcctgaac | ttactaagtg | gatcagggtg | gaagaatcca | gtcaggacca | 960 |
| agggaggaga | gtccaggaaa | atgccatgag | cagctctgtg | gcatgacctt | gttgggctgg | 1020 |
| gttaaagtag | ggctctgccac | cagtcagtgt | acagaaaggt | acctcatgca | cttcctcctt | 1080 |
| ccccagaaa | tcagcctcca | ggagtggagga | atgagcccag | aatgagagtt | tagagtgtct | 1140 |
| cagagccttt | gttagagggtg | ccctccgaca | ttcagaaaac | caggattcca | gagacctggg | 1200 |
| tttgagtcct | gacttttgag | cataactaact | gtgtgatctt | gaaccaacat | attttcacct | 1260 |
| aatgaggctg | acaatcttcc | ctacttcaca | aaatagttat | gagagtcaaa | taaaagtaca | 1320 |
| ttttagaaa | tgaaatgctg | tggacattta | aggtggagcc | actgtgagag | tctaggggga | 1380 |
| tagatgggtat | tcgtctcaga | atgaaacgaa | tacacccttc | tcagagccct | ttccaaggat | 1440 |
| cccctccttc | tttcagctcc | ttccctccac | ctcaatacac | actcctgtcc | caggaacctc | 1500 |
| acctcatcta | gaaataaccag | ggccagcatg | ccttacacct | agaggtttgg | ttggcttcag | 1560 |
| agaaacttct | ggaggctaaa | agcagccaag | aagaatcagc | cactacatgc | tgggcctgga | 1620 |
| tgaacagagc | agtgaagctgt | gatggggctg | gggctggggc | ccaggaggag | caggcaggag | 1680 |
| agtttgtagt | caccgtgatt | caaatattat | aacaaaaatc | atcgatcatg | tgtaggcac | 1740 |
| tttacagttc | ccaaagcact | ttcccatcca | tgccctgatg | atccttgaca | caacactgtg | 1800 |
| atgtgggttt | tattattttcc | agtacagatg | aggaagactg | aggcctgcat | cagtgaagca | 1860 |
| acctatccaa | gactacatag | agaaggcagt | aaatggcagg | gttagtctca | gaacagggga | 1920 |
| gggtctgttc | ccccgcagtg | gggcagtcct | aattctgaac | ttcacctatc | tgggggtgat | 1980 |
| agaggggaac | aagaggaagc | ctgctgaaga | gaaaacctaa | acatctgttt | tgtctacgta | 2040 |
| tgacttcttc | tgcttgtggg | agagaaggaa | ggaaaggaa | acattgttgt | cagccccaca | 2100 |
| acccaacag | aattaaacc | tggagcaggt | tgaacagcag | aggcttccct | cagatcaagg | 2160 |
| agccaggagc | agatgatcta | tctctgtggc | cacacagaga | gatgtcacct | tatgcaattt | 2220 |
| gcatatcata | ttcaattccc | ccaactgctc | tttctaattt | attcaactgg | ggaccaggct | 2280 |
| ggtctcatgc | caacctagga | gatgtaccat | agcagtatga | gcagaattcc | tcaggaggaa | 2340 |
| caattagcaa | aaactgcagt | tgcctctcga | taggcctgag | cagagagagg | aacaatagct | 2400 |
| ctcagggtct | tcctcatcag | attctaacta | agcagatgtt | ctcatgcttt | tttcttcttc | 2460 |
| ctatgtttctg | tatactgaca | cctcttctca | gtggcatatg | aaatatgaaa | tgctcatgtgt | 2520 |
| tgtgagtttg | tataaatata | aaggaatata | tatacacagt | agcaaaagag | aagatctcat | 2580 |
| ttacaaatat | ctatgggtgtt | tccttgttct | gtgttgatct | gttttattga | tacaaactga | 2640 |
| attttcttaa | tgtatcttct | atctctatta | tagtggcaat | gatgggtatat | gcattaaagt | 2700 |
| tcttctgaat | tgtgtatc | | | | | 2718 |

<210> 12049
 <211> 101
 <212> DNA
 <213> Homo sapiens

<400> 12049
 gcttgaaccc aggaggcaga ggttgacagtg agccgagatc gctccactgc actccagcct 60
 ggggtgacaga gtgatactct gtctcaaaaa aaaaaaaaaa a 101

<210> 12050
 <211> 7712
 <212> DNA
 <213> Homo sapiens

<400> 12050
 tttttttttt ttatataaag atggagtcctt gctctgtttgc ccaggctgga gtgcagtggg 60
 gtgatttcgg cccactgcaa cctccacctc ccagggttcta aagattctcc tgcctcagcc 120
 tcccagtag ctgggactac tgggtgatgc caccatgccc ggctaatttt atgtattttt 180
 agtagagaca gggtttcacc atgttagcca ggatgctctt gatctcctga cctcgtgatc 240
 tgccacacctt ggcttcccaa agtgctggga ttacagggtg gagccaccac acccgccac 300
 atatgaatat cttaaagatt aaatgattct ttgactttat gaggtcacta tcaagatacg 360
 tgaagaaata aaatatttta tttttcagga tgttatttct gacctagtat gtttctgtgt 420
 ttaagcattc atattttatat ctctatggca cttttttttt tttgacacag gagctggact 480
 gagcatcaaa catgtctgtg agctggcaat gagtcaccta agtacttttt tgtatcaaat 540

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctatgatgcc | atcattctta | agatgcacct | ttatttttatg | aaatagtaag | aaacaaaaaa | 600 |
| cactatggga | caccatcaaa | atatctgatt | tcagagaagt | tacaataata | aaaaatgtgt | 660 |
| atcttggaat | caatgaaatg | tggcgattcc | agttatctga | aagtcttaca | gatataatta | 720 |
| cactgagctc | ttattacgta | tcaagtacca | tgctaagtgt | ttttacatgt | attatctcat | 780 |
| ttattcttca | tagaaatgcc | atgaggtaga | tgctgtcttc | attttcattt | tgtacaggga | 840 |
| aacaaggtac | agaaaggttc | ataaccaaac | aactagtaag | tagaaaagac | aagatttgaa | 900 |
| caaagtagtc | tgacttccca | gtacatcctc | ttaattttatc | cttattgcct | gagaaaaagc | 960 |
| ttattagtagc | cttcagaaca | gaaaaagtg | tccttgccac | taaattctta | aggaaatcta | 1020 |
| tcaagtagga | ggatacacag | tgctccttatt | gccagataaa | gtccagtgtt | gtgctatatg | 1080 |
| taatggagag | tcaccagagg | gttttttagca | agggagagac | acaattggat | ttccaagggt | 1140 |
| ctaattctgat | ccaacaacag | aatttgtaat | atctgaaaaa | aatgaataga | tcacacattc | 1200 |
| cttagctagt | ctttcctaaa | tttcatttca | cttatcatta | actttcgtgt | gatgtctgaa | 1260 |
| tgcatttgaa | gtatctttga | aaggaacatg | ccacatattt | tggccaaccc | cacatcttac | 1320 |
| cctcgtgtag | ttcgtgctgt | tactataagt | tgcaaagctt | tggcctgcag | cctcatgtga | 1380 |
| tgtataatca | ccacctgctt | attctccaca | ccactgtaca | tgaattccat | tttgtaggtc | 1440 |
| tcttccataa | tctataaagg | aaagataatt | aacaatcaat | aaaaatatca | tagtcttact | 1500 |
| tgagagcagc | atagaattct | actgttaaatt | gacctaggt | gaaactctta | actgagattt | 1560 |
| tacatcctta | tgcttttaag | tgttgaaaga | aattagtaga | gtatgccttg | taaaaagaga | 1620 |
| ataaattatt | ttgcctactt | aaaaagaaga | ctgacctgg | aataaaatca | tcttagttga | 1680 |
| tgaatgtgaag | ataagaaagt | ttaatcacta | agcaaactgc | aaagcactga | aagcactgct | 1740 |
| tcttacccta | aatgaaagcc | actctgctgt | gggaacaaat | taatatatat | tatgtatgga | 1800 |
| aacccaatcc | ccacaaagtc | ctcaagaatt | aagcatcagg | aactattaac | catatgttag | 1860 |
| ttatcctgac | agactgttcc | atgggcctgg | tctgaggagg | tttgggacag | aaataagtcg | 1920 |
| aagaaaacat | ttgtctatga | ccccagatca | agtccccgat | cttgctcggt | tctatccaaa | 1980 |
| taagcgattt | tcatacaaat | gatgcttctc | ttttccttct | gtgcttgctt | cccagtgaac | 2040 |
| actctagggg | cacggaaatg | actccagact | ctcttacaat | tggcaataag | acaagttaaa | 2100 |
| ttacatgagt | gtctcaatcc | ctttctgtaa | acagggaaga | aacagtacca | atatcatgaa | 2160 |
| gtttcaagta | tcaaatggag | catgcaatgt | gtttatcaca | gtatctggta | tacagcaatg | 2220 |
| gtaattcctt | tctctttttt | cttccaaatt | attgctccct | ggteccatcc | ttccaatgtg | 2280 |
| gctcaattat | cgggttctag | tcattaaatt | ctactcttct | acaataagcc | acataccagg | 2340 |
| tctgagaaag | agtctggatc | agacaagagt | tcagcactgt | agtagaaaac | agattctggg | 2400 |
| tatcagagga | tctgggtctca | agtcctgact | gtattaccta | tagctctatg | aatttaacct | 2460 |
| tgctgagcct | taactgcctc | atctctaaaa | cagacttaat | acttattcct | atctaattggg | 2520 |
| attattatga | gggttaatta | agctaataga | cttgaaatca | tttagtgaac | tgtaatgtaa | 2580 |
| caataacagt | caccatcatt | agcttcctcc | tgggtcattt | acagactccc | tatctggaag | 2640 |
| acttgacctg | caagagatca | ccaagtctca | atactcaggt | gcaaagggga | atgactcaaa | 2700 |
| gctaaaaaga | aataaaactag | agacaaataa | aattaaagcc | tacttaatga | actaccagg | 2760 |
| accttttaac | gttgaagaga | tggtagagga | ttaaagatata | aacaacctta | actgagttgg | 2820 |
| gctacatttt | cagatgaaag | attcatgata | gtagagacag | cgtttcacca | tgttggccag | 2880 |
| gccggtctca | aactcctaac | cttaagtgat | gtgcccactc | cagcctccca | aagtgtcggg | 2940 |
| attacagggtg | tgagccaccg | cgcccgcccc | aactgccaca | ttttatagaa | gagaaaaaat | 3000 |
| ccagggaatt | taagtaactt | gctcaatatc | actcagcaaa | tcagaggaag | acctggggact | 3060 |
| aggaccagg | tcccctgagt | ccaaagttag | tgctgtgtct | cctagttatg | ctccttctca | 3120 |
| tatcactaac | ttctgtcata | gcctgaaatt | agggaggcca | cagcagaggt | atagagctac | 3180 |
| aggaaggcct | ctggctccgc | cttgaccag | acaattcctg | gacagagacc | tatttgaaag | 3240 |
| gaaggctgga | ataagcttac | ctgtgttgct | gctgctgagg | ccaaatcact | ctgcttcaaa | 3300 |
| tacaaagggg | cagctacatg | ccacaacttt | tcttgcaagg | cctacacaga | cagagctata | 3360 |
| ggaaggcctc | tggctctgtc | ttggaccaga | caattactgg | acagagacct | atttgaaagg | 3420 |
| aagggtctgaa | taagcttacc | tgtttcgtctg | ctgctgaggc | caaatacactc | tgcttcaaat | 3480 |
| acaaaggggc | agctacattc | cacaactttt | cctgcaaggc | ctacgcagac | aaatcaggag | 3540 |
| ggaacagaat | accgaggtca | caaagactgg | cctatcattt | gggatttaca | tttttgtttt | 3600 |
| cctttgaaag | tctcccatga | acatgacttc | tcaattgatc | ttattctttt | aacccaataa | 3660 |
| gctgtatcta | ttatggagaa | agatgagacc | aatggtttgg | gctaaatgaa | ttcccaccca | 3720 |
| tttgatccaa | ttcttggccc | aaaggctctg | tgteccagat | cagtgtcttct | ggaagcagag | 3780 |
| gacaggaacc | acgaaagctt | caccagaatg | cgcaggcaag | ccagcttccg | ggctctaggc | 3840 |
| actccttggt | cccagagcta | ctggagacta | ccaagccacc | tagatacttc | ttccttaact | 3900 |
| gtgggtcttt | tttcttttcc | cctatgctca | ttatgttgta | agccccaaac | actttatcaa | 3960 |
| catattcaac | tagaaatcaa | gcagctttcc | tagattttctc | cctcttttcaa | tctttctaca | 4020 |
| ttcaaaacca | ccactaagag | ccatgatattt | accttccatc | tctctcctca | cctatccatc | 4080 |
| cacatgacct | catcccttgc | acaaacttct | gtgacagcct | cttattttct | cagtccttct | 4140 |
| gaattacaga | tgtaatcaaa | tgacattaca | gaaaacctag | actaacactg | tccaatagaa | 4200 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| atataacatg | agctatatat | aatttttaaat | attctcgtag | ccacggtttt | taaattacaa | 4260 |
| agatgtaagt | taattttaag | atacaaagac | taagttaatt | ttttaaaaaa | gtttatttta | 4320 |
| cccagtatat | ccaagatatt | aacatttcac | catgcagtat | tttttaaatt | attaattagt | 4380 |
| ttacatttttc | tcttcatact | aagtcctgaga | aatccagtg | gtatttttgca | cttaataaca | 4440 |
| catctcagtt | tggactaaca | acttttttgag | tgctcaagag | tcccatgtat | ctgggtggcta | 4500 |
| tcaaattaaa | cagtggttagg | tctaaactgt | agataaaaaac | tataggaatt | tctggaatat | 4560 |
| ttactttctaa | tcattttcttg | tatgcagttt | ttttgacagt | tgtagtcaga | aagcagaatt | 4620 |
| aagttttgggg | attagatcat | aatcccaaaa | catacaatcc | caaagtgtga | aatcctcaca | 4680 |
| tccaaattct | ggggaagtga | ttagcgtggt | ttgggttgta | tgcaggatag | ttgcatcatg | 4740 |
| ttagttgtat | catgttaggc | acaactatta | ccatgttatt | gtctttattt | ggaaattaaa | 4800 |
| tatggcttaa | ggagatgcgt | atgagtgcca | agctgacaag | gggtggactt | gtggacctaa | 4860 |
| ttttagatat | cagcttgact | agattaagga | atatcagaaa | cctggtaaaa | gattattttg | 4920 |
| ttttacacat | tgaggggtgtg | tctatgagag | tgtttccaga | agagattagt | gtataaatct | 4980 |
| gagtgacta | agtggagact | atctgccctc | aatgttggcg | ggcaccatcc | aatcagccag | 5040 |
| tggccaggag | agaacaaata | cttaagacga | aatgggctgg | gagtggtggc | tcatgcctgt | 5100 |
| aatcctagca | ctttggaagg | ccgaggtggg | tggatgacct | gaggtcagga | gatggagacc | 5160 |
| agcctgacca | acatggcaaa | accctgtctc | tactaaaaat | acaaaaatta | gccaggcgtg | 5220 |
| gtggtgcaca | cctgtaatcc | cagctacttg | ggagactgag | acaggagaat | tgcttgaacc | 5280 |
| caagaggcag | aggttgcagc | agtgcgccga | gatcacgcca | ctgtattcag | cctggatgat | 5340 |
| aagctgagac | tctgtctcaa | aaaaaaaaaa | atggcatatt | agcaaaacgg | actctctggg | 5400 |
| ttctgtgct | tggatatcag | aaatctgact | ccatgaaagt | gcatcatcac | aatactgact | 5460 |
| ttgtgtataa | gcattgagtg | tgtacacaaa | atgttgaaac | ttcctcgata | aatgagatat | 5520 |
| ccttttcgta | catctgcatt | tgtgaaagat | aaaatttctt | gagatctcag | ctctttgggt | 5580 |
| gactgcatat | gcagtggtga | cccagcacag | tttccatcaa | tctcgtcaaa | agacttgagg | 5640 |
| ttgttgggca | cagtatttca | gatgaccaca | gttaaaaagc | tgggtataca | caattaacaa | 5700 |
| ccaaagtgat | atgcatttat | acctttccct | ttatgaccaa | tttctttata | aatatggctc | 5760 |
| atctgctcat | aactgttaga | cccacccaac | tgctattagt | aacctgagtg | tttatgcttg | 5820 |
| caaaaatgta | tgttgttatt | gtctgtttta | ttatatataa | tgatgtataa | agtattctgt | 5880 |
| tgtgttttta | tgtttctcaa | ataaattccc | ctttaaaaaa | taaatatctt | taaatttttt | 5940 |
| aaattatttc | ttccataaatt | atattttggt | gattttgata | ttttctgggc | tgtggttttt | 6000 |
| gggatttttag | accttaggga | tttttagtct | ttggaaattta | aacagtttag | gactatgatg | 6060 |
| ttctggacta | tcttttgagg | ttatgattgg | ctccccttct | tttgggtaca | taacattaca | 6120 |
| ccctaaatat | tttgtcatgt | tgttgtataa | ttcttcataa | agaattactg | actacagaat | 6180 |
| atactgctag | gtagctgtac | caaaatttat | ttagcttttt | tctgtttatt | aaacacactt | 6240 |
| gccttgggtt | ctggctctgg | gccccctacc | tacactgtca | ccccttgtca | ttgaataacc | 6300 |
| aacaattatg | tgttcttttt | aggagtaatc | acttctcttt | cctcacccat | attttgctac | 6360 |
| tatagaaaag | tggattcttc | tccatggcct | ccttgaattc | ctgggggttt | acagaggctt | 6420 |
| ggaaaagcca | aacaaccttg | caaaagggga | ggaaggaact | tcttggagtg | atgaaaatgt | 6480 |
| tctacgactt | gcctatgggtg | gtgattacac | agatatatac | attagaaaga | acatactag | 6540 |
| cctaacaagg | accatttaag | tgccaagtat | acatacgcac | ctttacatgt | ataggcacac | 6600 |
| ctgcacaact | gtaaatataa | catttagcac | aagttcacac | agtagaaaat | aacttttgac | 6660 |
| tccctgattt | actctgactt | tagccaaaca | tcattaatca | ctttgaaaac | aaagaacact | 6720 |
| ttgaactagg | gccaagataa | aagttcgtca | agtgagaagg | gctctcctaa | attctgtgcc | 6780 |
| aaaattttata | gtaaaattct | gctacagaag | ctgaaagata | ctgaactcat | ttaattgttt | 6840 |
| tttaactcag | caaaaactaa | tagattcttg | ggtaccaatt | ctgtgtatag | ctgactactg | 6900 |
| agtaagaaac | gccagcaagc | tggctctttt | aaaagcaatg | aatcaacct | tttaactttg | 6960 |
| atgaagtgca | gtgagttttt | ttgtttgttt | gtttgtttgt | tttcttttaa | gacaggatct | 7020 |
| tggctctgtca | tccaggctgg | agtgcattct | cactgcagcc | ttgacctcct | aggctcaagc | 7080 |
| agtcctccca | actccagccg | agtagctgga | tatacaggaa | tgcaccacca | cacctgccta | 7140 |
| ctttaaattt | tcttgtagag | atgaggtgtc | gctatgttgc | ccaggctggg | ctcaaactct | 7200 |
| tgagctcaag | cgatcctcct | gccttggcct | gccaaagtgc | taagattaca | ggtgtgagcc | 7260 |
| accgcacctg | gccttcaaat | gagcatttta | agaagatagt | ctaaaacttc | atacaattcc | 7320 |
| tttgctaate | aaattataca | aaacattttac | aaccttggga | ttctaactaa | aatgattatc | 7380 |
| caatctgctc | taattatatt | atgataaaaag | aattctcccc | aaattttacaa | attcctatga | 7440 |
| gttaatatatt | cgtttaattag | agacaaaagt | aatcacactg | cagagtacat | atttctccat | 7500 |
| tgtcaagtgg | ttgcattaag | accataagtt | ttataactta | tggcctcaca | cactgctgga | 7560 |
| tccacaaaga | tgcattttta | gcaacacaat | cataaatgga | atggatgcaa | accaaccttg | 7620 |
| atgagaagta | gttgacagcg | aagataggtg | gcagagaaat | cagctactcc | tgccaattca | 7680 |
| gattgaagtt | ctccaagtct | ttgcagatcc | ct | | | 7712 |

09050083 091201
102150 200560

<210> 12051
<211> 4403
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2735)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2755)
<223> n equals a,t,g, or c

<400> 12051
tccctatgct ttttaagtgtg gaaagaaatt agtatagtat gccttgtaaa aagagaataa 60
attatatttgc ctattttaaaa agaagactga cctggtaata aaatcatctt agttgatgat 120
gtgaagataa gaaagttttaa tctaactagca aactgcaaag cactgaaagc actgcttctt 180
accctaaatg aagccactc tgctgtggga acaaattaat atatattatg tatggaaacc 240
caatccccac aaagtcctca agaattaagc atcaggaact attaaccata tgtagttat 300
cctgacagac tggtccatgg gcctgggtctg agggagtgtg ggatggaaat aagtgcaga 360
aaacattgtc tatgacccca gatcaagtcc ccgatcttgc ttagttccat ccaaataagc 420
gattttcatc aaaatgatgc ttctcttttt cttctgtgct tgccctccag tgaacactct 480
agggtcacgg aaacgactcc agactctctt acaattggca ataagacaag ttaaattaca 540
tgagtgtctc aatccctttc tgtaaacagg gaagaaacag taccaatatc atgaagtttc 600
aagtatcaaa tggagcatgc aatgtgttta tcacagtatc tggatatacag caatggtaat 660
tcctttcttc ttttccttcc aaattattgc tccctgatcc catccttcca atgtggctca 720
attatcgggt cctagtccatt aaatgctact cttctacaat aagccacata ccaggtctga 780
gaaagagtct ggatcagaca agagtccagc actgtagtat aaaacagatt ctgggtatca 840
gaggatctgg tctcaagtc tgactgtatt acctatagct ctatgaattt aaccttgctg 900
agccttaact gcctcatctc taaaatagac ttaatactta ttcctatcta atgggattgt 960
tatgaggggt aattaagcta atagacttga aatcatttag tgaactgtaa tgtaacaata 1020
acaatcacca tcattagctt cctcctgggt catttacaga ctccctatct ggaagacttg 1080
acctgccaga gatcaccaag tctcaatact taggtgcaaa ggggaacggc tcaaagctaa 1140
aaagaaataa actagagaca aataaaatta aagcctactt aatgaactac ccaggacctt 1200
ttaacgttga agagatggta caggctaaag atataaaca ccttaactga gttgggctac 1260
attttcagat gaaagattca tgacagtgc catctcagcc tcccaaagtg ctgggattac 1320
tctcaaactc ctaaccttaa gtgatgcgcc catctcagcc tcccaaagtg ctgggattac 1380
aggtgtgagc caccacaccc ggcccaactg ccacatttta tagaagagaa aaaatccagg 1440
gaatttaagt aacttgctca atatcactca gcataatcaga ggaagacctg ggactaggac 1500
ccaggtcccc tgagtccaca gtgagtgtct cgtcccctag ttatgctcct tctcatatca 1560
ctaacttctg tcatagccta aaattagggg ggccacagca gaggtacaga gctacaggaa 1620
ggcgtctg cgccttggac cagacaattc ctggacagag acctatttga aggggaaggctc 1680
tgaataagct tacctgtgtt gctgctgctg agggccaaatc actctgcttc aaatacaaaag 1740
gggcagctac atgccacaac ttttcttgc aggcctacag agacagagct ataggaagcg 1800
ctctgctctg ccttggacca gacaattcct ggacagagac ctgtttgaag ggaaggctctg 1860
aataagctta cctgttttgc tgctgctgag gccaaatcac tctgcttcaa atacgaaggg 1920
gcagctacat tccacgactt ttcttgcaag gcctacacag acaaatcagg aggggaacaga 1980
ataccgacgt cacaagactt ggcatatcat ttggaattta catttttgtt ttcttttgaa 2040
agtctaccat gaacaggact tctcaattaa tcttattctt ttaacccaat aagctgtatc 2100
tattatggag aaagatgaga ctaatggttt gggctaaatg aattcccatc catttgatcc 2160
aattcttggc ccaaaggctc tgtgtcccag atcagtgtct ctggaagcag aggacaggaa 2220
ccatgaaacc ttcaccagaa tgcgcaggca agccagcttc cgggctctag gcaactcctg 2280
ttcccagagc cactggacta acccaagcca cctagatact tcttcttga ctgtggttct 2340
tttttctttt cccctatgct cattatgtta taagcccaa ccactttacc aacatattca 2400
actagaaatc aagcagcttt cctagatttc tccctctttc aatcttctac attcaaaacc 2460
accactaaga gccacgattt taccttccat ctctctcttc acctatccat ccacatgacc 2520
tcctctcttg cacaacttcc tgtgacagcc tcttattttc tcagtccttc tgaattacag 2580
atgtaatcaa atgacattac agaaaaccta gactaacact gtccaataga aatataacat 2640
gagctatata ttaattttaa tattctcata gccacagttt taaattacaa agatgtaagt 2700

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| ttccataatc | tataaaggaa | agataattaa | cgatcaataa | gaatatcata | gtcttacttg | 1500 |
| agagcagcat | agaattctac | tgtaaataa | ccttaggtga | aactcttaac | tgagatttta | 1560 |
| catccttagt | gcttttaagt | gttgaaagaa | attagatatag | tatgccttgt | aaaaagagaa | 1620 |
| taaattattt | tgcttattta | aaaagaagac | tgacctggta | ataaaatcat | cttagttgat | 1680 |
| gatgtgaaga | taagaaagtt | taatcactaa | gcaaactgca | aagcactgaa | agcactgctt | 1740 |
| cttaccctaa | atgaagccca | ctctgctgtg | ggaacaaatt | aatatatatt | atgtatggaa | 1800 |
| acccaatccc | cacaaagtcc | tcaagaatta | agcatcagga | actattaacc | atatgttagt | 1860 |
| tatcctgaca | gactgttcca | tgggcctggt | ctgagggagt | ttgggacaga | aataagtgca | 1920 |
| agaaaaacatt | tgtctatgac | cccagatcaa | gtccccgac | ttgctcggtt | ctatccaaat | 1980 |
| aagcgatttt | catcaaaatg | atgcttctct | tttccctctg | tgcttgccct | ccagtgaaca | 2040 |
| ctctagggtc | acggaaaatga | ctccagactc | tcttacaatt | ggcaataaga | caagttaaatt | 2100 |
| tacatgagtg | tctcaatccc | tttctgtaaa | caggggaagaa | acagtaccaa | tatcatgaag | 2160 |
| tttcaagtat | caaattggagc | atgcaatgtg | tttatcacag | tatctgggtat | acagcaatgg | 2220 |
| taattccttt | cctcttttcc | ttccaaatta | ttgctccctg | gtcccatcct | tccaatgtgg | 2280 |
| ctcaattatc | gggttctagt | cattaaattc | tactcttcta | caataagcca | cataccaggt | 2340 |
| ctgagaaaga | gtctggatca | gacaagagtt | cagcactgta | gtagaaaaca | gattctgggt | 2400 |
| atcagaggat | ctgggtctcaa | gtcctgactg | tattacctat | agctctatga | atttaacctt | 2460 |
| gctgagcctt | aactgcctca | tctctaaaac | agacttaata | cttattccta | tctaattgga | 2520 |
| ttattatgag | ggttaattaa | gctaatagac | ttgaaatcat | ttagtgaact | gtaatgtaac | 2580 |
| aataacagtc | accatcatta | gcttctcctt | gggtcattta | cagactccct | atctggaaga | 2640 |
| cttgactctgc | aagagatcac | caagtctcaa | tactcaggtg | caaaggggaa | tgactcaaag | 2700 |
| ctaaaaagaa | ataaactaga | gacaaataaa | attaaagcct | acttaatgaa | ctaccaggga | 2760 |
| ccttttaacg | ttgaagagat | ggtacaggct | aaagatatata | acaaccttaa | ctgagttggg | 2820 |
| ctacattttc | agatgaaaga | ttcatgatag | tagagacagc | gtttcaccat | gttgggccagg | 2880 |
| ccggtctcaa | actcctaacc | ttaaagtgat | tgcccatctc | agcctcccaa | agtgtctggga | 2940 |
| ttacaggtgt | gagccaccgc | gcccggccca | actgccacat | tttatagaag | agaaaaaatc | 3000 |
| caggggaattt | aagtaacttg | ctcaatatca | ctcagcaaat | cagaggaaga | cctggggacta | 3060 |
| ggaccagggt | cccctgagtc | caaagttagt | gctgtgtctc | ctagtatatgc | tccttctcat | 3120 |
| atcactaact | tctgtcatag | cctgaaatta | gggaggccac | agcagaggta | tagagctaca | 3180 |
| ggaaggcctc | tggctccgcg | ttggaccaga | caattcctgg | acagagacct | atttgaaggg | 3240 |
| aagggtctgaa | taagcttacc | tgtgttgctg | ctgtctgaggc | caaatcactc | tgcttcaaatt | 3300 |
| acaaaggggc | agctacatgc | cacaactttt | cctgcaaggc | ctacacagac | agagctatag | 3360 |
| gaaggcctct | ggctctgtct | tggaccagac | aattactgga | cagagacctt | tttgaagggga | 3420 |
| aggtctgaat | aagcttacct | gtttcgctgc | tgctgaggcc | aaatcactct | gcttcaaata | 3480 |
| caaagggggca | gctacattcc | acaacttttc | ctgcaaggcc | tacgcagaca | aatcaggagg | 3540 |
| gaacagaata | ccgaggtcac | aaagactggc | ctatcatttg | ggattttacat | ttttgttttc | 3600 |
| ctttgaaagt | ctcccatgaa | caggacttct | caattgatct | tattctttta | acccaataag | 3660 |
| ctgtatctat | tatggagaaa | gatgagacca | atgggttggg | ctaaatgaat | tcccacccat | 3720 |
| ttgatccaat | tcttggccca | aaggctctgt | gtcccagatc | agtgcttctg | gaagcagagg | 3780 |
| acaggaacca | cgaaagcttc | accagaatgc | gcaggcaagc | cagcttccgg | gctctaggca | 3840 |
| ctccttgttc | ccagagctac | tggactaacc | caagccacct | agataactct | tccttaactg | 3900 |
| tggttctttt | ttcttttccc | ctatgctcat | tatgttgtaa | gccccaacca | ctttatcaac | 3960 |
| atattcaact | agaaatcaag | cagctttcct | agatttctcc | ctctttcaat | ctttctacat | 4020 |
| tcaaaaccac | cactaagagc | catgatttta | ccttccatct | ctctcctcac | ctatccatcc | 4080 |
| acatgacctc | atcccttgca | caaacttctg | tgacagcctc | ttattttctc | agtccttctg | 4140 |
| aattacagat | gtaatcaaat | gacattacag | aaaacctaga | ctaacactgt | ccaatagaaa | 4200 |
| tataacatga | gctatatata | atttttaata | ttctcgtagc | cacggttttt | aaattacaaa | 4260 |
| gatgtaagtt | aatttttaaga | tacaaagact | aagtttaatt | tttaaaaaag | tttatttaac | 4320 |
| ccagtatatc | caagatatta | acatttccac | atgcagtatt | tttttaaatta | tttaattagtt | 4380 |
| tacattttct | cttcatacta | agtctgagaa | atccagtggtg | tattttgcac | tttaataacac | 4440 |
| atctcagttt | ggactaacia | cttttcgagt | gctcaagagt | cccatgtatc | tggtggctat | 4500 |
| caaattaaac | agtggtaggt | ctaaactgta | gataaaaact | ataggaattt | ctggaatatt | 4560 |
| tacttctaatt | catttcttgt | atgcatgttt | tttgacagtt | gtagtcagaa | agcagaatta | 4620 |
| agtttggggg | ttagatcata | atcccaaaac | atacaatccc | aaatggtgaa | atcctcacat | 4680 |
| ccaaattctg | gggaagtgat | tagcgtgttt | tgggttgtat | gcaggatagt | tgcatcatgt | 4740 |
| tagttgtatc | atgttaggca | caactattac | tctttatttg | tctttatttg | gaaattaaat | 4800 |
| atggcttaag | gagatgcgta | tgagtgccaa | gctgacaagg | ggtggacttg | tggacctaat | 4860 |
| tttagatatc | agcttgacta | gattaaggaa | tatcagaaac | ctggtaaaaag | attattttgt | 4920 |
| tttacacatt | gaggggtgtg | ctatgagagt | gtttccagaa | gagattagtg | tataaatctg | 4980 |
| agtgtactaa | gtggagacta | tctgccctca | atggtggcgg | gcaccatcca | atcagccagt | 5040 |
| ggccaggaga | gaacaaatac | ttaagacgaa | atgggctggg | agtggtggct | catgcctgta | 5100 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| atcctagcac | tttgaagggc | cgaggtgggt | ggatgacctg | aggtcaggag | atggagacca | 5160 |
| gcctgaccaa | catggcaaaa | ccctgtctct | actaaaaata | caaaaattag | ccaggcggtg | 5220 |
| tggtgcacac | ctgtaatccc | agctacttgg | gagactgaga | caggagaatt | gcttgaaccc | 5280 |
| caagaggcag | aggttgcagc | agtgagccga | gatcacgcca | ctgtattcag | cctgggatgat | 5340 |
| aaacgggagac | tttttttcca | aaaaaaaaaa | aaggcaatat | agcaaaacgg | actctctggg | 5400 |
| ttctgctgct | tggatatcag | aaatctgact | ccatgaaagt | gcatcatcac | aatactgact | 5460 |
| ttgtgtataa | gcattgagtg | tgtacacaaa | atgttgaaac | ttcctcgata | aatgagatat | 5520 |
| ccttttcgta | catctgcatt | tgtgaaagat | aaaatttctt | gagatctcag | gctctttggg | 5580 |
| tgactgcata | tgcagtggtg | acccagcaca | gtttccatca | atctcgtcaa | aagacttgag | 5640 |
| gttgttgggc | acagtatttc | agatgaccac | agttaaaaag | ctgggtatac | acaattaaca | 5700 |
| accaaagtga | tatgcattta | tacctttccc | tttatgacca | atctctttat | aaatatggct | 5760 |
| catctgctca | taactgttag | acccacccaa | ctgtcattag | taacctgagt | gtttatgctt | 5820 |
| gcaaaaaatgt | atgttgttat | tgtctgtttt | attatattaa | gtgatgtata | aagtattctg | 5880 |
| ttgtgttttt | atgtttctca | aataaattcc | cctttaaaaa | ataaatatct | ttaaattttt | 5940 |
| taaattattt | cttcataaat | tatattttgg | ggattttgat | atcttctggg | ctgtggtttt | 6000 |
| tgggatttta | gaccttaggg | attttagtct | tttgggaattt | aaacagttta | ggactatgat | 6060 |
| gttctggact | atcttttggg | attatgattg | gctccccttc | ttttgggtac | ataacattac | 6120 |
| accctaaata | ttttgtcatg | ttgttgata | attcttcata | aagaattact | gactacagaa | 6180 |
| tatactgcta | ggtagctgta | ccaaaattta | tttagctttt | ttcctgttat | taaacacact | 6240 |
| tgccttgggt | tctggctctg | ggccccctac | ctacactgtc | accccttgtc | attgaataac | 6300 |
| caacaattat | gtgttctttt | taggagtaat | cacttctctt | tcctcaccca | tattttgcta | 6360 |
| ctatagaaaa | gtggattctt | ctccatggcc | tccttgaatt | cctgggggtt | cacagaggct | 6420 |
| tggaaaagcc | aaacaacctt | gcaaaggggc | aggaagggaac | ttccttgga | gatgaaaatg | 6480 |
| ttctacgact | tgcctatggg | ggtgattaca | cagatatata | cattagaaag | aacatatcta | 6540 |
| gcctaacaag | gaccatttaa | gtgccaagta | tacatacgca | cctttacatg | tataggcaca | 6600 |
| cctgcacaac | tgtaaatata | acatttagca | caagttcaca | cagtagaaaa | taacttttga | 6660 |
| ctccctgatt | tactctgact | ttagccaaac | atcattaatc | actttgaaaa | caaagaacac | 6720 |
| tttgaactag | ggccaagata | aaagtctcgtc | aagtgagaag | ggctctccta | aattctgtgc | 6780 |
| caaaatttat | agtaaaattc | tgctgcagaa | gctgaaagat | actgaactca | tttaattgtt | 6840 |
| ttttaactca | gcaaaactaa | atagattctt | gggtaccaat | tctgtgtata | gctgactact | 6900 |
| gagtaagaaa | gcggagcaag | ttggctcttt | taaaagcaat | gaaatcaacc | ttttaacttt | 6960 |
| gatgaagtgc | agtgagtttt | tttgtttgtt | tgtttgtttg | ttttctttta | agacaggatc | 7020 |
| ttgggtctgtc | atccaggctg | gagtgcaatc | tactgcagc | cttgacctcc | taggctcaag | 7080 |
| cagtcctccc | aactccagcc | gagtagctgg | atatacagga | atgcaccacc | acacctgcct | 7140 |
| actttaaatt | ttcttgtaga | gatgaggtgt | cgctatgttg | cccaggctgg | tctcaaactc | 7200 |
| ttgagctcaa | gcgatcctcc | tgccttggcc | tgccaaagtg | ctaagattac | agggtgtgagc | 7260 |
| caccgcacct | ggccttcaaa | tgagcathtt | aagaaaaatag | tctaaaactt | catacaattc | 7320 |
| ccttgctaag | caaattatata | aaaacattta | caaccttggg | attctaacta | aaatgattat | 7380 |
| ccaatctgct | ctaattatat | tatgataaaa | gaattctccc | caaatttaca | aattcctatg | 7440 |
| agttaatat | tgcgttaatta | gagacaaatg | taatcacact | gcagagtaca | tatttctcca | 7500 |
| ttgtcaagtg | gttgcattaa | gaccataagt | tttataactt | atggcctcac | acactgctgg | 7560 |
| atccacaaaag | atgcattttt | agcaacacaa | tcataaatgg | aatggatgca | aaccaacctt | 7620 |
| gatgagaagt | agttgacagc | gaagataggt | ggcagagaaa | tcagctactc | ctgccaattc | 7680 |
| agattgaagt | tctccaagtc | tttgcagatc | cct | | | 7713 |

<210> 12053

<211> 1495

<212> DNA

<213> Homo sapiens

<400> 12053

| | | | | | | |
|------------|------------|-------------|-------------|-------------|-------------|-----|
| tttttttttt | tataaagatg | gagtccttgc | ctgttgccca | ggctggagtg | cagtgatgtg | 60 |
| atttcggctc | actgcaacct | ccgtctcccc | ggttctagag | attctcctgc | ctcagcctcc | 120 |
| cgagtagctg | ggactactgg | tgcattgccac | cacgccccagc | taatttttatg | tattttttagt | 180 |
| agagacaggg | tttcaccatg | ttagctagga | tgccttctgat | ctcctgacct | cgtgatctgc | 240 |
| ccaccttggc | ctcccaaagt | gctgggatta | caggtgtgag | ccaccgcacc | cggccacata | 300 |
| tgaatatctt | tacgattaaa | tgattctttg | actttatgag | gtcactatca | agataagtga | 360 |
| agaaataaaa | tattttat | ttcaggatgt | tatttctgac | ctagtatgtt | tctgtgttta | 420 |
| aacattcata | tttatatctc | tatgccactt | ttttttttga | cacagcagct | gaactgagca | 480 |
| tcaaacatgt | ctgtgagctg | gcaatgagtc | acctaagtac | ttttttgtat | caaattctatg | 540 |

| | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|------|
| atgccatcat | tcttaagatg | caccttttatt | ttatgaaata | gtaagaaaca | aaaaacacta | 600 |
| taggacacca | tcaaaatatt | tgatttcaga | gaagttacaa | taataaaaaa | tgtgtatctt | 660 |
| ggaatcaatg | aaatgtggca | attccagtta | tctgaaagtc | ttacagctat | aattacactg | 720 |
| agctcttatt | acgtatcaag | taccatgcta | agtgttttta | tattgtatta | tctcattttat | 780 |
| tcttcataga | aatgccatga | ggtagatgct | gtcttcattt | tcatttttgta | cagggaaaca | 840 |
| aggtacagaa | aggttcataa | ccaaacaact | agtaagtaga | aaagacaaga | tttgaacaaa | 900 |
| gtagtctgac | ttcccagtac | atcctcttaa | tttatcctta | ttgcctgaga | aaaagcttat | 960 |
| tagtcccttc | agaacagaaa | aagtgggtccc | tggcactaaa | ctcttgagga | aatctatcaa | 1020 |
| gtaggaggat | acagaatgtc | cttattgcca | gataaagtcc | agtgttggtgc | tatatgtaat | 1080 |
| ggagagtcac | cagaggggtt | ttagcaaggg | agacgcacag | ttggatttcc | aaggggtctaa | 1140 |
| tctgatccaa | caacagaatt | tgtaatatct | gaaaaaaatg | aatagatcac | acatttcctta | 1200 |
| gctagtctat | cctaaatttc | attttactta | tcattaactt | tcgtgtgatg | tctgaatgca | 1260 |
| tttgaagtat | ctttgaaagg | aacatgccac | atattttggc | caaccccaca | tcttaccctc | 1320 |
| atgtagttcg | tgctgttatt | ataagttgca | aagctttggc | ctgcagcctc | atgtgatgta | 1380 |
| taatcaccac | ctgcttattc | tccacaccac | tctacatgaa | ttccattttg | taggtctctt | 1440 |
| ccataatcga | taaagaaaag | ataattaaca | atcaataaaa | atatcatagt | cttac | 1495 |

<210> 12054
<211> 952
<212> DNA
<213> Homo sapiens

| | |
|-------------|-------------|
| <400> 12054 | |
| ttttttttct | ttttcctttt |
| gtagtggcac | aatctcagct |
| cctcagcctc | ctgagtagct |
| tatttttagt | agagacaaaag |
| caggtaatcc | tcctccttg |
| cccggcccc | atgcctttca |
| cttcctgaac | tggaaaacgc |
| acagctcttt | tcctatacca |
| tcaaggccta | ttcattttca |
| gtttcccaact | tgggttttatt |
| cctactacaa | atattttgcac |
| ttgggttcac | tcagtattgc |
| ctcagtaaat | gctggatgaa |
| ctttgtcttt | gggagcttca |
| gagcccagta | ggttgggctg |
| acagaggtag | ttcaagaagc |
| ttttttagaca | gagtttcgct |
| cactgcaacc | tccacttcct |
| ggaattacag | gcgcagtgtca |
| tttcaccacc | ttagccaggc |
| gcctcccaaa | gtgctgggat |
| ttaaataata | aatttcattc |
| cgccccattg | ttatctcttt |
| cccttctaca | accactgcat |
| cccagttaaa | acagcatgtc |
| tctgagatcc | tcaactccat |
| aatgaaactc | catggaacat |
| acttggcaca | gagtttaagt |
| tatgggtcag | gaaaggaatg |
| gtgcagaaac | ataacagggtg |
| cccatatccc | ctttgctgac |
| ttcatctttg | tt |

<210> 12055
<211> 1531
<212> DNA
<213> Homo sapiens

| | |
|-------------|-------------|
| <400> 12055 | |
| tggatacttg | ctgctctact |
| tggccattgc | attaatccct |
| ccttgccctg | gctgccaggc |
| tgggaggtag | agccctcccg |
| ttgttggtag | ttccacgagg |
| ctcttttggt | tttaccctct |
| tcagtttggt | ttccttactc |
| tagtcatgtg | tgccctcttac |
| gcaactatat | gagtattcct |
| ctagcacaca | gtaggtactc |
| acccaagtg | gttcatgtaa |
| agaattagta | ttcatgaagc |
| tgtaaaataa | aacttctacc |
| gctagactct | cctcctctac |
| gcatgaatta | gctgacctgt |
| gtgaccattt | gccacttac |
| cgtgtaagaa | ggatgcgtag |
| cctgggtctc | tggattctgc |
| ttctccacct | tccatttcgc |
| catttccatg | tacttaccat |
| gtaaatttag | tatgacagct |
| agccttaaga | tatgacagct |
| ctggactgat | ttcatatttt |
| cactattaaa | tccactttta |
| catagtaagc | actatgtgtt |
| tgtaatttat | ttttatgaga |

| | | | | | | |
|-------------|------------|-------------|-------------|------------|------------|------|
| ataatgcagc | tctggttttg | ttacctatct | caaaaactta | cttataaatg | ggtacagtaa | 840 |
| taattttataa | aaaagaaaat | gactttacat | gttggttcata | tgtgtacttt | ccaataaagt | 900 |
| cttggaaatat | ggtgacaatt | tagaaatatg | tgggggttctt | tttttaaagg | ttgtactgat | 960 |
| gaactctcat | taaaaggaac | tgctatatatt | tggtgtttat | tgtagaatgg | aagctacaaa | 1020 |
| agtattcatg | caatggccaa | agatatagat | ctcctcgcaa | aaaatgccaa | aacttataat | 1080 |
| gagcctggct | ctcaagtatt | caagggttagt | tttgttggtg | ttgttggtgt | tgttttcctt | 1140 |
| ggtaatatga | gataatttaa | ggtcagtaat | ttttataaaa | caactttatt | gagatataat | 1200 |
| tcacatacca | tggactttac | ccattaaaag | tgtttaattt | aggctgggcg | cagtggctca | 1260 |
| cgcctgtaat | cccggcactt | tgtgaagcct | agggtgggtg | atcacgaggt | caggcggtcc | 1320 |
| agaccagcct | ggccaacata | gtgaaacccc | atcctttacta | aaaatacaaa | aattagctgg | 1380 |
| gcgtgggtggc | agggcgctgt | aatcccagcc | aatcgggagg | ctgaggtagg | agagtcgggt | 1440 |
| gaatccggga | ggcagagggt | gcagtgagct | gagattgcac | tccagcccgg | gcgacagtgc | 1500 |
| aagactctgt | ctcaaaaaga | aaaaaaaaa | a | | | 1531 |

<210> 12056
 <211> 195
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12056 | | | | | | |
| ctggatatta | tacccttata | atgtaaatgg | tttgcaaata | ttttctccca | ttctcttctg | 60 |
| ttttcacttt | tgtgattgtg | tctgttgaca | cacagaagtt | tttcattttg | aagttcactt | 120 |
| tatctatatt | tttctttggg | tgctaattgt | taagtgtcat | atcaataaaa | tcattcccta | 180 |
| atccaaaatc | acaaa | | | | | 195 |

<210> 12057
 <211> 1967
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|-------------|-------------|------|
| <400> 12057 | | | | | | |
| tttggacttg | cattacccta | tgctccacct | ctgtattcag | cagaagtgtg | gttgccatct | 60 |
| ttttcacttt | atgtaaagga | gtgttgccct | cggggccctg | gcagattgcc | accccagcac | 120 |
| ctagggtgaa | gcacctgggt | tataggccct | atctttccct | acccctaaag | tcagtcacct | 180 |
| aggacaattt | cccagctgat | ggggctacac | agtagttcca | atacagagag | ttctggctaa | 240 |
| gattttgttt | gcttgtgtct | ggatgttgaa | aaagactgcc | cgtatctctt | actccttctt | 300 |
| tctctgtgag | tattgtaaaa | atggctgttg | tgatcactca | gctcagcttt | tgttattggg | 360 |
| acctcctaaa | gggaaaagtg | caatattctt | gcatcttcag | tagtggggaa | caggatgtat | 420 |
| tgttccggaa | acactgaaat | acacagcaac | atgtgagatg | ttttaagtag | atcacttagg | 480 |
| agacagtggg | tctactacat | gttgcatatt | tacaaaatac | atttgctaca | ggagatataa | 540 |
| atcttatggg | tgtaattcag | agtttaaaaa | tgttataaat | taggttcttg | ggtcgtgata | 600 |
| tgaattgtta | ctaattcttg | tgactattta | atcttcaaat | attgtgctta | acccagcaa | 660 |
| tccgcacgta | tctgcaccc | caccccaaaa | gagtcactct | tattttaatg | ccactgggtct | 720 |
| tatcgggtcct | tttgtctggt | gagaccagtc | atgacagcat | tcaagattat | gaaagtgtta | 780 |
| caatgccgct | tcaagtcctg | aaaacctcaa | acgtagccaa | cttgacaaat | atttaagtgt | 840 |
| tacggcagat | ttaaaatcca | tctggcacac | cgtggtaggt | atttgtacag | ttcttttaat | 900 |
| tacacatagc | tttaaaccat | caacctgatg | agtttaaaagc | ttttgcaccc | atgccttcac | 960 |
| ttcagaatga | acaccttcac | tgtgatctta | tgttaacctg | agaattgatt | taaaggaaga | 1020 |
| ttgataatcc | tatactttat | aacgtaaaaa | tacaggggct | acaggagggg | acctaattag | 1080 |
| acagttctcc | aaacacagaa | cacacactgg | aaaattttcc | ggccaatttt | gctacctccc | 1140 |
| aacttgatgg | attagaggta | gcgcaaatgc | tggtgctccc | atctaccttg | tagacactta | 1200 |
| gccatcaaga | atcaaggcac | aagaagtgca | ctctctcatt | aacagtaaat | gtttgcaaga | 1260 |
| tattcagttt | aactttcagc | atcatgaatg | ttcttatcca | gattttgaat | ccgaaaaact | 1320 |
| ataatccttt | tatgttatat | aaaattacta | tcttttttta | cagttcttgag | catattaaaa | 1380 |
| ttctactgga | tttcaaaaag | agactaatac | ccaactgact | aactaaacaa | atatcaactt | 1440 |
| gtaatactca | atgaattttt | ttgccattta | catttgaccg | ttggcttttag | tgaatgtcca | 1500 |
| tatttaattt | tttaaggcac | cattacacag | tttatcctac | atttatcaca | tttcttaaa | 1560 |
| tgtttaagatt | ctatggctca | tttctatgta | ttttctttac | tttacaataa | aacctgaaac | 1620 |
| agtatagatt | ttgtaacact | taatttgagc | agctttttta | ttacattgaa | ttatacaaa | 1680 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| tgcattgttac | cttagaaaaa | ttaatatattt | ctgctttact | cttttgcaaa | acattttgctg | 1740 |
| taatgaatgg | atattgtattt | ccaatatgta | tcttgactgc | atatttgtaat | atattactgct | 1800 |
| ttatttcctaa | ttctgcttta | aagtactgaa | ctgggcatga | aacattaaaa | tattaatcca | 1860 |
| gaaactgtat | aaactggatg | ttgcttaaaa | tctgtatcac | tgccatgttg | aaaactcaga | 1920 |
| ctgcttttgt | gatgtttcaa | atgaataaaa | ctatcctccc | ctcgta | | 1967 |

<210> 12058
 <211> 3201
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|-------------|
| <400> 12058 | |
| tcagaattaa | atcattttat |
| gttaatgaaa | agtagaactt |
| agtactcgga | ggaatgaaca |
| aagtttagcat | ttaattcttt |
| tgttttaccat | ttttttatct |
| tagtggttgt | gtgtggggga |
| ttaaagttag | tctcgcaaga |
| cattttgtca | tatcttttaa |
| aggtaattta | gcataggagc |
| agccagagag | ctaagtataa |
| acagatttcc | aatccaataa |
| acatgaattc | tgaacttttg |
| tgcaagtaag | agtcttctgg |
| aactccagaa | gataccttta |
| gcacagcagc | agcagcaaat |
| tagaattagt | tcttggtttg |
| aaactaattg | acctagcagt |
| attcacatcg | gtagaagtaa |
| caaattttca | ctgagtagat |
| atctacacaa | aaaagaaaca |
| taattttcaa | tttcccaggg |
| agaaaacaga | taaatgcaca |
| attattgcat | gaactgatgc |
| ctaccttcaa | atccagctta |
| agctttaagt | tcaaagtcac |
| aaatatctat | gttggaacta |
| acaacaatct | tttccagtat |
| acgttcaaca | attctgttat |
| agtactagca | cagtttagta |
| taaatatgtg | tcatttttaa |
| agcctatata | acatttcctta |
| tggaataaaa | cttatttttag |
| ctagatcaat | gattcaacta |
| gaacatttaa | aaatatatgc |
| gaatctatca | tttacaagga |
| atttgaaaat | tttcatgttc |
| tcattccatt | ctctactatg |
| catctcctcc | tatctgccat |
| acactgcgaa | ggtataaagt |
| agccaggatt | aattctaatt |
| catggctatt | ttcatagagg |
| tacacaaccc | aagtactgac |
| ctctttatgc | catatacaag |
| gaattcagca | gtaaagtgtc |
| taataactcc | agttattttc |
| atctctccaa | gcttttaatt |
| agatacttgg | ggaggggggc |
| aattatcaac | aaaaatccca |
| ttttgccaca | agaagctcta |
| aaagtcatga | caggggaagat |
| aggtttcata | tagttgacca |
| agaatatgca | tgctttgaca |
| atgggggaaa | aatgcggcat |
| caaaatcata | ataatcattt |
| atattttaaat | ttctgtagtt |
| tttcaagtag | ttcctatcca |
| ctaacttcaa | acaagaaaag |
| caatatggta | atatttaaa |
| tgaggacttt | ttgccccaaa |
| ttatagaaaa | actgaagacc |
| caaaaataca | atattaattt |
| agtttaaatg | tcattttcag |
| ctattattca | gaatggatag |
| cttgtagaat | ctgccaagtt |
| agatctggaa | gctctgccgg |
| agcattaatg | aaactcaaaa |
| acactatagt | caaagagtaa |
| ccagagatca | cagagtctta |
| aaatggtttg | aagggtctaga |
| tcttggaag | caaaggattt |
| cagctaccaa | cttaagaaa |
| aacgatgtat | acatgagaaa |
| atattttaaa | atacatgggtc |
| agcaagggtta | caaagtacta |
| cttttgcaaaa | aaaaaaaaaa |
| ctatatgtat | gttccaacct |
| agtaagtgtt | aactttattt |
| tattgttggtc | aagaaaaatg |
| gattactata | atattgcagc |
| atcttgccga | aaggaaaaata |
| gtggagattc | tacgcaatat |
| tatgtaaagt | ctcaccatg |
| tggtggcctt | cagattcaaa |
| aagaagccaa | aaggaaaatct |
| atccatgcaa | cagaactttt |
| gttttttgcc | cccagagacc |
| ttacagacta | tggaactgaa |
| tcagatgaga | gacttgtctg |
| gttcgcttgg | actagcagat |
| acaactctaa | aacttattta |
| ctcaatgtta | agaaaaattga |
| taagatgtac | tagggtagtc |
| caaattctat | tcaggaaaact |
| tgaaaaactaa | ctatataaac |
| caggaaaatt | tgcttctaaa |
| gtggcagatc | aaattaactt |

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|------|
| gttcgcacct | taatttgttt | tacagatctt | ctgaaacccc | tgccccatca | tccaaaacaa | 2940 |
| aacttttctag | tattttcaaag | gagtttagta | agactctggg | attataaatt | caaactcagt | 3000 |
| actgccatct | gttacatttt | gtttaaaaat | tgaatcattt | tcctgctgaa | taaaaatata | 3060 |
| ttcccagggtc | attggcttgt | tctgagtaga | tgtagtgggtc | cctactggag | gttctttttcc | 3120 |
| agtgtcaacc | ttatacccaa | taccatcatc | cttcattgca | ggaatagtgc | ttgatctatc | 3180 |
| ggaaagatat | gcatattgtc | t | | | | 3201 |

<210> 12059
 <211> 8835
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| <400> 12059 | | | | | | |
| gaaaaccttt | ttatatattct | gtacaaaactt | ttcatttttaa | tattgtgaca | ccaccatgca | 60 |
| agttctcaca | caatatccgt | gtctttaga | gtagtgaagt | gtttgttaag | tagaaaaaca | 120 |
| caccagtgtg | gtacccagt | aaagggtgtg | tctggagagt | cagtggtttc | tggaactctg | 180 |
| gactgtcaac | caggaagtgt | tgaagtgtg | gaaaaattaa | agcacatggg | taatagcatg | 240 |
| ggcagagcag | agactgagac | gatctatgtc | catgccaaaag | gaagcatcct | agtaagtttc | 300 |
| tggctatggc | aagatgacaa | aactcgggtg | acgtttttatc | tggatcactt | ttggagcact | 360 |
| aaagcagata | accaattttg | tgctaacata | catgtgtctca | ggagagcctg | attttaagac | 420 |
| tgacttcacc | ccattgtctc | tgtgttccag | aaccttcaag | gaacatcacc | taccagatcc | 480 |
| aagctttgcc | agcttagctt | tcctcatgat | cagctcctat | ctatctatca | atcaatcagc | 540 |
| tgtcagttcc | acccatgtgc | ccaagtgtc | ttcacacctt | cacacctgca | atgctttcct | 600 |
| gtgcagccta | ccttggagggt | cccactcaat | gctccacttc | ccttccagct | cctttgaaga | 660 |
| ctcagtcaca | catgaaattt | ggcatttaac | tttagtaata | tactcacaag | tgtgttacta | 720 |
| gtgcctacct | caccttcacc | agcctggaga | aaaggctatt | ttcagggtac | cactgtttgtg | 780 |
| cagctgagcc | aagtcttctc | gctctcaatc | aatcacccctg | ctgctcttgg | ctgccctgca | 840 |
| tcacagccct | ctggatgata | tgctcattga | gggagggggcc | aactatatac | aaaaaaaaac | 900 |
| acgttttctg | aaattactcc | tagatttcta | gatgagtatg | taaatttttc | tgctcccaaa | 960 |
| gctctggcat | ctagtttgag | tcaatctgag | ctctataaca | ggtgaagaca | tcataattagt | 1020 |
| ttgcagacta | gactatcaat | aggagaaata | ggacgaaagc | agcactttta | aaatggatat | 1080 |
| taaactacca | cgatcttgag | caaacatctt | tattttaagaa | atcaaatagg | gtaaaaatta | 1140 |
| tgcaatttca | cacaaggata | caagacaaag | cttagaatta | ccttgctcaa | agttactcag | 1200 |
| aatggaacaa | aattgttcaa | gtgctcccaa | ttagcacagg | ctgtattact | tgcttttcaa | 1260 |
| tggacattta | ctatttttaca | ttaagatcta | cttataggaa | caaagagaca | attcccagcc | 1320 |
| ccctctgggtg | tatcacctaa | aagactgaat | acaaatgtta | atgtaatcca | agcttttctt | 1380 |
| tgacaacaat | actaaaaatt | gccttacaat | tttttacaag | tacgagtatc | aacagtttac | 1440 |
| tgtctgaggg | aaaggaaata | taagaatata | aaagtgcaga | agcaacacac | ttcactgtgg | 1500 |
| cctgcaactg | ctcccagcgt | cctattttat | aaacatgatt | tgggttctca | cattatagca | 1560 |
| ggatcactat | tcctagcctc | tgggtggaagc | agacatgtga | cacttagcac | tgcacaagtg | 1620 |
| tttcttttggc | ttcttgagta | gtgctgtgta | tactgcctat | acatttttat | aacatctcta | 1680 |
| aatgcataat | gtcaacgtat | gtgctatcac | atttctactc | caactgcaga | atattttaat | 1740 |
| tttaaattta | tctaccaa | ccttgactatg | acattttatt | ttgggttggt | acattaagat | 1800 |
| caacctatct | gggcggggca | cgggtggctca | cacctgtaat | cccagcactt | tgggaggctg | 1860 |
| aggcaggaga | attgcttgaa | gtcaggaggc | agagggttacg | gtgaaacaac | tgccattgca | 1920 |
| ctccagcctg | gacaacagag | cgaaactcca | tctcaaaaaa | aaaaaaaaaa | ccccaaagat | 1980 |
| caacctatct | gaattgggta | agtcaaaagc | ttattcctgg | ccgggcacgg | tgggtcatgc | 2040 |
| ctgtaatcct | agcacttttg | gaggctgagg | cgggtggatc | aactgaggtc | aggagtttga | 2100 |
| aaccagcccg | gccaaaatag | cgaaaccccg | tctctactaa | aaacacaaaa | attagccagg | 2160 |
| tgtgggtggg | catgcctgta | atcccagcta | ctcgggaggc | tgaagaagga | gaattgcttg | 2220 |
| aaccaggag | gtggagggtg | cagtgcagca | agactgtgcc | actgcactcc | agcctgcaca | 2280 |
| acaggagcaa | gactccatct | caaaaaaaca | aaaaacaaaa | aacaaaaaca | aaaaccacaca | 2340 |
| aaaaaccaa | aagctttatc | ccaattttta | agtaaaaaata | tttcatggcc | gggcgtgggtg | 2400 |
| gctcacagc | ctgtaatccc | agcactttct | gagggtgggtg | gatcacgagg | tcaggagtcc | 2460 |
| aagaccagcc | tgaccaatat | ggtgaaaccc | tgtctctact | aaaaatacaa | aaattagcca | 2520 |
| ggtgtgggtg | tgcacgccta | taatctcagc | tactcgggag | gctgaagaag | gagaattgtc | 2580 |
| tgaacccggg | aggtggagggt | tgcagtgcgc | caagatcgtg | ccactgcact | acagcctgca | 2640 |
| caacaggagc | aagactccat | ctcaaaaaaa | aaaaaagcga | gcttattccc | aatttttaag | 2700 |
| taaaaatatt | tcatgggttg | gcacgggtgg | tcacgcctgt | aatcccagta | ctttggggagg | 2760 |
| ccaaggcggg | cagatcacga | ggtcaggagt | tcaagaccag | cctgaccaat | atggtgaaac | 2820 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| cctgtctcta | ctaaaaatac | aaaaattagc | cgggcgtggt | ggcacgcgcc | tgtagtccca | 2880 |
| gctacttgga | ggctgaggca | ggagaatcgc | ctgaacctgg | gaggcggagg | ttgcagtgag | 2940 |
| ccaagattgc | gccactgcac | tccagcctgg | caacagagtg | agactctgta | tcagaaaaaa | 3000 |
| aaaaaaaaaa | aaaacatgat | tattgataat | gaactcttta | taaataacac | tggtcacaag | 3060 |
| gaaataccaa | ttgatctatt | gatacgtgac | atgagacaga | atgtactatt | tttaaataata | 3120 |
| aaaggaatth | cattaggtth | agataagctg | agaatacaca | aaagttttcc | aggctattta | 3180 |
| atcaagtaac | ttacaatgta | cacattcctg | agtatacacc | attgtggtga | catcatttat | 3240 |
| tttggaatth | tctgcattca | gcttaaaaagg | tgthttcttc | caagaaactg | aacttttctg | 3300 |
| tcaaattgcac | ttgatcgaat | aggagaattg | ggttcataaa | atggattcat | tgaaaactag | 3360 |
| gaaagaagaa | agtatttagtg | aagcaaaaaa | gctgacaaat | cttaagtttc | tgaaaggaaa | 3420 |
| tcatttttaa | gttttaaaatt | aaaaaccaaa | gacattccaa | agtctaaaga | ccacattttt | 3480 |
| aagtttttatt | gaaaatgctg | cattgttaat | aacatcctct | taaggaaatt | tttatttttg | 3540 |
| tgthtttggt | ttgagaagta | tctgtggcaa | aactaatggc | agtatgataa | atgttgctg | 3600 |
| tgtcagttaa | ctttcagaat | ttaccgtgtg | tgthaaatac | tcataattcat | tataaataaa | 3660 |
| tggtattaatc | tctatggccc | tttggtctaca | taaaacaaaa | aaatctgcca | tgthgctcaga | 3720 |
| gttcagaaaa | agctattctt | gtgtggtaat | cttttaacaa | tcaggthttt | aatactctcc | 3780 |
| tttaacacaa | gactgctaaa | tgatcagctt | ctcaaattag | tgthtcataa | cgcatgacag | 3840 |
| aaaatcatta | aatggaatca | ctaattgagga | aaggcattgc | tgattthttat | accttaatca | 3900 |
| cttgacattg | ttcatcttta | taagagggct | aaatattact | tactacctct | gactaggaat | 3960 |
| actgttaaat | tgtattactg | tgctgatatg | caagaaattc | tgthccaaata | cagaacttat | 4020 |
| ttaaattatt | aaaaacatac | gggcccaggca | tgthggctca | cgctgtaat | cccagcactt | 4080 |
| tgthggggcca | aggcgggtgg | atcacttgag | gtcaggagtt | tgagaccagc | ctggccaaca | 4140 |
| tgthcaaaacc | tcgtctctac | tgaaaataca | aaaattagct | gggtgtggtg | gtgcacactt | 4200 |
| gtggtcccag | ctacttgga | ggctgaggca | ggagaatcgc | ttgaacctgg | aaggcagagg | 4260 |
| ttgcagtgag | ctgagatcac | gccactgcac | tccagcctgg | gtgacagagc | aagactgtct | 4320 |
| ccaaaacaaa | acatactatt | gttatcactg | cagtgttaacc | atgacgtcct | attattattt | 4380 |
| tattttttcaa | aatcaagaaa | tgcaagtggc | gccattcttc | ttgagtggct | atttgatcat | 4440 |
| ataaaaaatca | cttcttgcca | gtttatgatc | tctattgcac | tgtaacttat | ttgtaaaagta | 4500 |
| gatggaaaca | ttttagatta | aattatgaag | taattttccc | ttatataggc | tgctttcttg | 4560 |
| ctgtcttttag | ggatccccta | taaaatcagc | tatgaggaca | acaaggtgaa | gaatgaaacc | 4620 |
| aattttacct | cacaatcatc | taaaggtaac | taccatgaag | ttgtgttcct | aaatacatat | 4680 |
| tcacctgggt | gtgaagactt | acctgcggag | ggagttgcca | gagatagttc | tgatggggga | 4740 |
| aagctagtct | gaaaggtaaa | ctgcagccta | agggagttac | ttcaataggc | cagtttctctg | 4800 |
| acaaagggtcg | aatcctttct | catcagaatt | taaaaattat | agaacatacc | atacctttat | 4860 |
| atataaatca | taaacatcag | taaagaagtt | ctttattcca | tcttcttgtc | ttatgtcatg | 4920 |
| aagcataata | aacctcatat | gtgaaataat | taaggcataa | tctttcttag | aaatgaaaaa | 4980 |
| caaaaagcaa | ccagttcggt | gatacagtat | tcttcaaatt | agtcacatgc | agtgtatttg | 5040 |
| tgatggaaaa | gttgaatata | taaactgggt | ttaaaattag | cttagthttta | tcataaaagag | 5100 |
| aacataagct | ttcaaagtta | gaaaataact | gtaaaataaa | aattagctat | ccttgatagg | 5160 |
| gtccagataa | actctttttg | tgthtgagac | ttagthttta | aattagctat | taaaacaaat | 5220 |
| gtttttcccc | cctaaaaaaa | gaaaagtagc | cccataaatg | gaaacttaca | ttttcacctg | 5280 |
| actgtgaagt | ctacagactc | agagcctggc | atctatgttc | catgttcttc | tggtttgtga | 5340 |
| gccccaaact | tagttagtta | cctttactaa | gaaggtaagg | atatgccccg | cagtgacaaa | 5400 |
| tgccgacaca | aaccactcgt | tgaacttgtc | cacagthttc | aagtacatgt | tgthtcgatag | 5460 |
| ccacatgttc | tcacttacga | ggtcgagagc | agcatgagct | atgaactggg | tcagatgacg | 5520 |
| atggctgctc | tagatgacag | tgthgagcaac | cacagattaa | catttgcata | tggtcatcgag | 5580 |
| aatgctgaca | tttcattctg | taaattctat | agatgthttt | cttgthggga | aaaaacagtt | 5640 |
| tgctttttata | ctttgttatt | gtcatgagac | ttataaaaga | tctgttttca | tattatatct | 5700 |
| tatttttttaa | tttgatatct | acatctcaac | agaaacagcc | aattaaataa | tgaaatgtgt | 5760 |
| atatagagga | tttatacaaa | atcattttat | gaaaatcttt | ttcatataaa | tttttttttca | 5820 |
| tgthttcaaga | aggaagttac | cgaattctgt | aaccatctaa | acatgtaaaa | aaaggatact | 5880 |
| atgttaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaacaaga | tctgtgggag | aagaggtgcc | 5940 |
| attcacacta | ggcctcaagg | tctgggagga | aactgagagg | gcggggcttc | ctgcacagtg | 6000 |
| gcaccaggtg | agcagtagag | acagttgaaa | tgthgccttat | aacggcctgc | cagaggcctc | 6060 |
| tttccagtg | atggagctta | catgacagcg | ggacctagga | gtagthgggag | gtgatgtctca | 6120 |
| gccccagctg | tgagcagtcg | cctgtgtcaa | tagcaggaca | cagthctgtc | agagctggga | 6180 |
| gtgtcctttt | cctgggctga | aatggcttaa | gtgaacagaa | ggthgggactg | tctgaccata | 6240 |
| atgtgaagac | ggaattcaga | acttggaatg | cagthcttact | ccaatgtagt | tctttgaaaa | 6300 |
| tacatttttt | ggccaggcgc | ggtggcttat | gcttgtaatc | ctagcacttt | gggaggctga | 6360 |
| ggcaggtgga | tcacctgagg | tcaggagttc | aagaccagcc | tgthccaatat | ggtgaaatcc | 6420 |
| catctctact | aatacaaaaa | ttggccggct | gtggtggtgc | atgcctgtaa | tcccagctac | 6480 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| tcgggaggct | gaggcaggag | aattgcttga | acctgggagg | cggaggctgc | agtgagccga | 6540 |
| gatcacgcca | ttgcaactcca | gcctggggga | caagagcaaa | actccgtctc | aaaaaaaccc | 6600 |
| aagccatttt | tcaaagaata | cctgttatgg | gttgaagtgt | ttcctctcta | aaattccttt | 6660 |
| gttgaagtcc | taagcaacag | tacctcagaa | tgtaggcctta | tatggaaaga | gggttggtgc | 6720 |
| agatgtggtt | agctaagatg | aggtcacact | ggagtaggggt | ggggccctaa | tccaatggac | 6780 |
| tggtgtattt | agaaaaaggg | aacattttaga | gatgcacaca | gggagaaaaa | tgccacatga | 6840 |
| agactggagt | tatgctgcca | caagccaagg | aactcccaga | agctgggaga | gaggcctgga | 6900 |
| cagacccttg | tctttgtgcc | ttcataggga | gcatggcccc | actgacacct | tgatttcaga | 6960 |
| tggtggccct | cagaactgag | acaataaatt | tctgctgtcc | caagccactc | agtttttcgt | 7020 |
| actttgttac | aacagccata | ggaaactgag | acggcttcct | tgccaaggag | gctgttctca | 7080 |
| tgccctgggt | ggaggagggc | ggcccgttgc | cgtggaatcc | catgcatagt | taaagcatgt | 7140 |
| tttacttcac | tcatgttgcc | atgacaaagc | taagtgaatc | cttagagaaa | tggatgtttt | 7200 |
| tgtgtctggc | tcacagcagt | gttttctttt | acaatgatga | tcaatcctga | agaattagga | 7260 |
| gcaaactgaa | aacgctttta | gaaagtgagt | ggtagcagga | gaaagaacta | aaatcaagtt | 7320 |
| atgcaacaaa | gtatttttat | gtgtgctttg | tccaacacaa | gggcagtgga | gtgcacagaa | 7380 |
| attacatata | agtagctgca | tcccacaaag | cagtactgggt | acagagatac | ctcaaaaaca | 7440 |
| agtttttaag | agtagtggtc | tcataatatg | agaaaataat | gtcacaactc | cacctcatag | 7500 |
| agaatcccgt | aaacaaatgc | ctatcttatt | ttggtggcaa | ggcctgaata | gttgaaaaat | 7560 |
| accatatatt | atgcattaca | attaacttaa | aacatcaatt | ccttaaagga | cattaaagcc | 7620 |
| aatttttggg | ggttggggga | aacatagcaa | acttgtcagc | aatttattag | aaacagaaat | 7680 |
| tggaaagaac | tgggctcttc | tcgtgtcaaa | actctacagg | tctggggccag | gtgtagtggc | 7740 |
| tcatgtctgc | aatcccagca | ctttggggagg | ccgagggcag | gcagaccacc | tgaggtcagg | 7800 |
| agttcgagac | cagcctgggc | aacatggcga | aaccctgtct | ctactaaaaa | tacaaaaaatt | 7860 |
| agcctggcac | agtgggtgag | acctataatc | ccagctacct | gggaggctaa | tacaggagaa | 7920 |
| ttgcttgaac | ccaggaggca | gaagttgcag | tgagctgaga | tcgtgtcact | gcactccagt | 7980 |
| ctgggcgaca | gagcaagact | ctgtctcaaa | aagaataaat | aaataagatc | caaattggtt | 8040 |
| tatttttaag | atattgggatg | gtaatctttc | ttaaaatata | tggtccattt | ccttgtctca | 8100 |
| aaaaaaaaaa | atactctatg | ggtctgaatg | gcaatatgtc | ctcgagctaa | gcttggtttt | 8160 |
| tggaaccatt | cttgacaagc | aagttgggtg | gtatcacctc | tggtgctgct | tttgagcttc | 8220 |
| ctgtgtatgg | ccaaggtgtc | actggggagg | ggagcatata | ggctcaacc | agccaggga | 8280 |
| tgctgcagaa | ggcccttgaa | gtgagggtg | gcagaccag | tggcagcagg | aagacaggga | 8340 |
| agtaaggggt | ttttctaacc | cagtaggtcc | tgatgaaaaa | catgattcat | gaaaacagcc | 8400 |
| tggaactttc | tggtatttca | aggcggcaat | ccactacagg | tgaactatgt | ctttatgtgc | 8460 |
| ttaagcaaca | gcaattcatg | gtgggtgaca | tagtgaactg | agtatgatgg | gaatgccaga | 8520 |
| gcgtcatgct | agtctgtgct | gaactaaagg | atgaataaac | atctccaagg | acataccctg | 8580 |
| gctggcttct | atcagtctgt | gggctcctga | gcaagcctca | tttaattgtg | gtggatttca | 8640 |
| gttaccttat | ctgtccagat | cttccagttc | taaaatcata | ttataaccata | tcattacaat | 8700 |
| agcataaaaa | ttcttacgta | ctttggattc | tgcttcccca | gctggcaaaa | actccatttc | 8760 |
| aaaaactgga | ttatcatggt | ggccaacaat | tacaaagtag | aagctcccag | acatgggtct | 8820 |
| caatatatgg | ctcct | | | | | 8835 |

<210> 12060
 <211> 492
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|-------------|
| <400> 12060 | |
| caaattgtgg | tcttttgtgg |
| tatggaggct | aaccaaagcc |
| gggatatcaa | aggacatgct |
| gccccagca | gagatacagt |
| acgctgcaa | tccaacact |
| tgaaccgggt | cttactaaa |
| ttctcggaag | gctgacgcag |
| cgagatcaca | tcactgcact |
| aaaaaaaaaa | aa |
| atgaagttca | tatgctgtgt |
| tagactgagt | gtggatgaga |
| gggtgagagg | agctgactgt |
| tcggttttaa | gaaaaaaggc |
| tttgagggtc | aagagggtcga |
| aatacaaaaa | ttagttgggc |
| gagaatcact | tgaaccggga |
| ccagcctggg | gacagtgaga |
| tggttggtgac | tatctgattc |
| gggagtgatg | |
| gtgaaccact | |
| gcggtggctc | |
| gacaacatgg | |
| tagtcccagc | |
| tgcaagtgagc | |
| ctccacctca | aaaaaaaaaa |
| | 492 |

<210> 12061
 <211> 4787

<212> DNA
<213> Homo sapiens

<400> 12061

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| ggttatgggt | taactcagca | gaatttggtg | aacaactacg | acatgctggg | gatcatggta | 60 |
| tgttttagaga | cacaaaagtg | aattcaaaat | cttctcttca | attattttat | catacgttcc | 120 |
| ctttgtttct | ttgctatttg | ccaagccctc | tatttggtgt | tccaccttaa | tgccttcaca | 180 |
| tgtgctcttt | cttatgcctg | gaacacttcc | tgcaaatata | gatatgtctc | tttcactttc | 240 |
| ttcattgagg | tttttgttta | aatgtcatct | tgtataaaaag | cctctccctt | atcaccacat | 300 |
| ataaaaaatga | gtcactgcc | ccctccatcc | caaaactttc | taatattttt | accttcccat | 360 |
| atgtttttat | tcatagcact | tatcattatt | ggtatcattc | attgtttact | tcctgattat | 420 |
| tcttcccaag | agagtataaa | ttgttagaga | ttaggaactt | tgatttattc | actgctgtta | 480 |
| tctcccgctgc | ctgaaattat | attcagcaca | tagttgaaag | gtattcaaaa | aatttggttaa | 540 |
| aataatacat | taatgacata | tatatatgtg | tgtatgcttt | ccttactgat | gtaacctact | 600 |
| ttctatagtt | caccattcaa | gtgtttttca | ttattattat | gttctgcaca | gttttgctcat | 660 |
| tagtcacagt | ctagtgttta | atccttatat | tttctctctc | ttcttttaggc | atggaatgca | 720 |
| acttgcaaaa | actggctggc | agcagaggct | gccctggaaa | agtactacct | ttccattttt | 780 |
| tatgggattg | agttcgttgt | gggagtcctt | ggaaaatacca | ttgttggtta | cggctacatc | 840 |
| ttctctctga | agaactggaa | cagcagtaat | atztatctct | ttaacctctc | tgtctctgac | 900 |
| ttagcttttc | tgtgcaccct | ccccatgctg | ataaggagtt | atgccaatgg | aaactggata | 960 |
| tatggagacg | tgctctgcat | aagcaaccga | tagtgcttct | atgccaacct | ctataccagc | 1020 |
| attctctttc | tcacttttat | cagcatagat | cgataacttga | taattaaagta | tcctttccga | 1080 |
| gaacaccttc | tgcaaaaagaa | agagtttgct | attttaaatct | ccttggccat | ttgggtttta | 1140 |
| gtaaccttag | agttactacc | catacttccc | cttataaaatc | ctgttataac | tgacaatggc | 1200 |
| accacctgta | atgattttgc | aagttctgga | gaccccaact | acaacctcat | ttacagcatg | 1260 |
| tgtctaacac | tgttgggggt | ccttattcct | ctttttgtga | tgtgtttctt | ttattacaag | 1320 |
| attgctctct | tcctaaagca | gaggaatagg | caggttgcta | ctgctctgcc | ccttgaaaag | 1380 |
| cctctcaact | tggtcatcat | ggcagtggtg | atcttctctg | tgctttttac | accctatcac | 1440 |
| gtcatgcgga | atgtgaggat | cgcttcacgc | ctggggagtt | ggaagcagta | tcagtgcact | 1500 |
| caggtcgtca | tcaactcctt | ttacattgtg | acacggcctt | tggcctttct | gaacagtgtc | 1560 |
| atcaaccctg | tcttctatatt | tcttttggga | gatcacttca | gggacatgct | gatgaatcaa | 1620 |
| ctgagacaca | acttcaaate | ccttacatcc | tttagcagat | gggctcatga | actcctactt | 1680 |
| tcattcagag | aaaagtgagg | ggcttgtgaa | acagattggt | ctacagatga | atctgtgaagc | 1740 |
| cagttacagt | ttgccttaac | tcatagacat | caatcagaga | gtgtcacaga | tttaaccttg | 1800 |
| atctaaagac | aagttgtacc | cagagtatgt | gaaaagaatg | ggacgacaag | aatgtactgg | 1860 |
| tttcttctct | taagaattga | aaggagttga | actgccttat | gtttgggcat | gtaactccaa | 1920 |
| aatactaggt | agtataaggc | tttctcaatc | agtgcaaaaa | tggaaagatat | ataaagcaac | 1980 |
| aagttgtctg | catttgatca | ctggtcagat | tgtaaaaaaa | aaaaaaattg | ttttggcaac | 2040 |
| attctctatg | ttattcttat | tcacatgac | ctagaacttt | atgtgagaac | tgaatagcag | 2100 |
| aagatatatt | attaaatagt | ttttggaagt | tgtgctgtta | agcaaatgta | aagtcaacag | 2160 |
| taacaatgat | taagaaagga | atataatgag | ttcaaagata | tctatctgat | atatttttta | 2220 |
| tattcatcat | gaatcggggg | agtcttgtaa | tttatctaac | ctttttgttg | tatgggttta | 2280 |
| tagtggaag | aatcttaatt | taaaataaaa | gaacctgaag | agataattca | acaaaagtag | 2340 |
| agaatatgtt | tgagcttgct | agagaattta | agtatcaaaa | tactagagag | atacaccaag | 2400 |
| gatatttgaa | taaaaaaaa | atltgtagaa | cacaaaatgc | ctatcaggaa | acccaaagca | 2460 |
| aaacagaaca | aaaagtgaat | acatcgtttt | aaatgatgat | tttgccatct | ggtattttat | 2520 |
| tatcataaatt | tgaccaccag | tgcatgaaaa | tatatataag | ttcattagcc | ttctgctctt | 2580 |
| gatttaatag | tgaactttta | aatatattaa | tatcataaac | cagcaataaa | ggagaaataa | 2640 |
| actgataata | ctagattcat | tgggatagtt | ttcccttttg | gagggaaagt | cacaattttt | 2700 |
| ctccatgatc | ccccattttt | tgtaaacact | ggaataattt | acaaggataa | ctttatttga | 2760 |
| gcgagagcaa | atcacatctg | gagtgagcct | tgttttcatg | caacattacc | ataagaccat | 2820 |
| tggagtaaat | gtttcaaaca | aatgtacttt | catgaaatta | tagaacataa | aaatattttat | 2880 |
| gtgcatatta | acctgtatta | tcccaggagg | gttaatgagg | ccccattttc | tgcacaaaac | 2940 |
| aaatgtaggg | gaaaaaatgg | gtgctgcatt | agctttttta | agtcaaacaa | ctatcacata | 3000 |
| ataattcctt | gatatgcaac | ataaagtacc | tatggccaca | tatctaagtt | cctttccttg | 3060 |
| atgtcattag | ctataaggag | tgagtaatgt | gaaggacaaa | ataagcatta | tgaatacaga | 3120 |
| gacataaaat | tccactgtcc | cttccttttc | tgaataactc | tgggaggtat | tctgatattt | 3180 |
| ttaaatcccc | caattttccc | agttgatatc | tctagacttc | aagcaactga | aatattataa | 3240 |
| aaatgcatta | gtcacaaaag | atltattttt | ttacatcaca | ccaggcttta | agatattttt | 3300 |
| tgccatgcct | tgcttttagt | atcaatat | taaaaatttc | actgtaattt | tataactgcc | 3360 |
| taataacaaa | ctgaaaacag | aacttctgag | tttccttatc | agaaagggcc | acagaaaagg | 3420 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ccttaagaaa | gaaagattca | cttacttctg | caaacttggc | aatccgtaat | ttaaactttaa | 3480 |
| tttgtatttt | atgcatgaat | tttacttgta | aagacaaaat | taaatttgct | tcccctacat | 3540 |
| cccaactcca | agaagtcaca | ggaatagact | ctttctaata | gtgcagtga | atattttttc | 3600 |
| aaaccataaa | ctcacatata | tatatatata | tatatatata | tatatatata | tatatgtacc | 3660 |
| ttgtaaacia | gagggttaaga | aatttttatag | cacatttttaa | aattattttc | ttcctcaa | 3720 |
| ctatcatgtg | gtaactta | ctttaacaga | ctttagggcc | ctaaactaaa | attataagag | 3780 |
| ctatttcatt | tgcttggtgt | actgggta | tgtaagaatc | acaacaata | aatcatgaaa | 3840 |
| atcctttctg | ggtttggtgt | ttctaaagga | aataatattg | agcttttgta | ttttgtcttt | 3900 |
| taattggctc | cctgggtatct | tcagaatgat | gtctagattc | ttcagctctg | accacacac | 3960 |
| tcttctcaca | ttatctccca | tcactgttgt | cacaaacat | accctatagc | ttaaagattgc | 4020 |
| tactttagtt | tattacattc | agaactttct | tcactttgtt | cacctgttgc | ccatctttgt | 4080 |
| tctatcatat | ctgaatggta | taataattct | aaacaacttt | caaggttcat | ctcatctgtc | 4140 |
| attctttgtt | gaagcttgcc | cttatatcct | ctcttcccca | aacctaaaag | taaaactttc | 4200 |
| taccactggg | gcttcagata | cttttaatac | tacttatttg | aatttcatta | tttttattat | 4260 |
| agtttattat | tgtcttcata | gctgagtact | cttaaaaatta | ctgtttatta | taagtgaatg | 4320 |
| tcttacagaa | caaactcaaa | gtcaatgctt | cttttgcatg | tgaataatca | agctattttt | 4380 |
| ttgtcatcat | tacttttagta | agtaacatta | ttttatatga | agaatagagt | gtatatacat | 4440 |
| aaacccatgt | gccagctgcc | attgcactgc | ctcacatttt | ccttttagatg | tttgagcata | 4500 |
| gttttaaatga | ctgtttgaaa | tctctgtctc | ctagtcccaa | atatgggtca | tcttgaggatt | 4560 |
| ggctcttcat | gggtgcctttt | ctcttcagta | tgagtcataa | ttttcctgtt | tctctatatg | 4620 |
| cctagtaaat | tagaattttt | ttctagatga | tgaataatgt | gtggcagaga | ttctggattc | 4680 |
| tgttacattc | catcaaagag | tattgatatt | ttgtatatat | atttacaat | gtacatgtac | 4740 |
| acaataataa | aaataatttt | tttctcagac | ctgcctgcaa | tcatgaa | | 4787 |

<210> 12062
 <211> 4787
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|------|
| <400> 12062 | | | | | | |
| ggttatgggt | taactcagca | gaatttggtg | aacaactacg | acatgctggg | gatcatggta | 60 |
| tgtttagaga | cacaaaagtg | aattcaaaat | cttctcttca | attattttat | catacgttcc | 120 |
| ctttgtttct | ttgctatttg | ccaagccctc | tatttggtgt | tccaccttaa | tgcttcaca | 180 |
| tgtgctcttt | cttatgcctg | gaacacttcc | tgcaaatata | gatatgtctc | tttactttc | 240 |
| ttcattgagg | tttttgttta | aatgtcatct | tgtataaaag | cctctccctt | atcaccacat | 300 |
| ataaaaaatga | gtcactgcc | ccctccatcc | caaaactttc | taataatttt | accttcccat | 360 |
| atgtttttat | tcatagcact | tatcattatt | ggtagcattc | attggtttact | tcctgattat | 420 |
| tcttcccaag | agagtataaa | ttggttagaga | ttaggaactt | tgatttattc | actgctgta | 480 |
| tctcccgctgc | ctgaaattat | attcagcaca | tagttgaaag | gtattcaaaa | aatttgttaa | 540 |
| aataatacat | taatgacata | tatatatgtg | tgtatgcttt | ccttactgat | gtaacctact | 600 |
| ttctatagtt | caccattcaa | gtgtttttca | ttattattat | gttctgcaca | gttttgatc | 660 |
| tagtcacagt | ctaattgttt | atccttatat | ttctctctct | ttcttttagg | atggaatgca | 720 |
| acttgcaaac | actggctggc | agcagaggct | gccctggaaa | agtactacct | ttccattttt | 780 |
| tatgggattg | agttcgttgt | gggagtcctt | ggaaatacca | ttggtgttta | cggctacatc | 840 |
| ttctctctga | agaactggaa | cagcagta | atcttatctc | ttaaacctct | tgtctctgac | 900 |
| ttagcttttc | tgtgcacctc | ccccatgctg | ataaggagtt | atgccaatgg | aaactggata | 960 |
| tatggagacg | tgtctgcat | aagcaaccga | tatgtgcttc | atgccaacct | ctataaccgc | 1020 |
| attctctttc | tcacttttat | cagcatagat | cgatacttga | taattaagta | tcctttccga | 1080 |
| gaacaccttc | tgcaaaagaa | agagtttgct | attttaatct | ccttggccat | ttgggtttta | 1140 |
| gtaaccttag | agttactacc | catacttccc | cttataaatc | ctgttataac | tgacaatggc | 1200 |
| accacctgta | atgattttgc | aagttctgga | gaccccaact | acaacctcat | ttacagcatg | 1260 |
| tgtctaacac | tgttgggggt | ccttatctct | cttttttgta | tgtgtttctt | ttattacaag | 1320 |
| attgctctct | tcctaaagca | gaggaatagg | caggttgcta | ctgctctgcc | ccttgaaaag | 1380 |
| cctctcaact | tggtcatcat | ggcagtggtg | atcttctctg | tgctttttac | acctatcac | 1440 |
| gtcatgcgga | atgtgaggat | cgcttcacgc | ctggggagct | ggaagcagta | tcagtgcact | 1500 |
| caggtcgtca | tcaactcctt | ttacattgtg | acacggcctt | tggcctttct | gaacagtgct | 1560 |
| atcaaccctg | tcttctattt | tcttttggtg | gatcacttca | gggacatgct | gatgaatcaa | 1620 |
| ctgagacaca | acttcaaate | ccttacatcc | tttagcagat | gggctcatga | actcctactt | 1680 |
| tcattcagag | aaaagtgagg | ggcttggtga | acagattggt | ctacagatga | atctgtaagc | 1740 |
| cagttacagt | ttgccttaac | tcatagacat | caatcagaga | gtgtcacaga | tttaaccttg | 1800 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| attctaagac | aagttgtacc | cagagtatgt | gaaaagaatg | ggacgacaag | aatgtactgg | 1860 |
| tttcttcctc | taagaattga | aaggagttga | actgccttat | gtttgggcata | gtaacctcaa | 1920 |
| aatactagggt | agtataaggc | tttctcaatc | agtgcacaaa | tggagatat | ataaagcaac | 1980 |
| aagttgtctg | catttgatca | ctggtcagat | tgtacaaaaa | aaaaaaattg | ttttggcaac | 2040 |
| attctctatg | ttattcttat | tcacatgatc | ctagaacttt | atgtgagaac | tgaatagcag | 2100 |
| aagatatatt | attaaatagt | ttttggaagt | tgtgctgtta | agcaaagtga | aagtcaacag | 2160 |
| taacaatgat | taagaaagga | atataatgag | ttcaaagata | tctatctgat | atatttttta | 2220 |
| tattcatcat | gaatcggggg | agtcttgtaa | tttatctaac | ctttttgttg | tatgggttta | 2280 |
| tagtggaag | aactcttaatt | taaaaaaaa | gaacctgaag | agataattca | acaaaagtag | 2340 |
| agaatatgtt | tgagcttgtc | agagaattta | agatcaaaa | tactagagag | atacaccaag | 2400 |
| gatatttgaa | taaaaaaaaa | atttgtagaa | cacaaaaatgc | ctatcaggaa | acccaaagca | 2460 |
| aaacagaaca | aaaagtgaat | acatcgtttt | aatgatgat | tttgccatct | ggatattttat | 2520 |
| tatcataatt | tgaccaccag | tgcatgaaaa | tattattaaag | ttcattagcc | ttctgctctt | 2580 |
| gatttaatat | tgaactttta | aatatattta | tatcataaac | cagcaataaa | ggagaaataa | 2640 |
| actgataata | ctagattcat | tgggatagtt | ttcccttttg | gagggaaagt | cacaattttt | 2700 |
| ctccatgatc | ccccattttt | tgtaaacact | ggaataattt | acaaggataa | ctttatttgta | 2760 |
| gcgagagcaa | atcacatctg | gagtgagcct | tgttttcatg | caacattacc | ataagaccat | 2820 |
| tggagtaaat | gtttcaaaca | aaatgtactt | catgaaatta | tagaacataa | aaatattttat | 2880 |
| tgcatataata | acctgtatta | tcccaggagg | gttaatgagg | ccccatttcc | tgcaaaaaac | 2940 |
| aaatgtaggg | gaaaaaatgg | gtgctgcatt | agctttttta | agtcaaacaa | ctatcacata | 3000 |
| ataattcctt | gatattgcaac | ataaagtacc | tatggccaca | tatctaagtt | ctttctcttg | 3060 |
| atgtcattag | ctataaggag | tgagtaatgt | gaaggacaaa | ataagcatta | tgaatacaga | 3120 |
| gacataaaat | tccactgtcc | cttccctttt | tgaataactc | tgggaggtat | tctgatattt | 3180 |
| ttaaatcccc | caattttccc | agttgatatc | tctagacttc | aagcaactga | aatattataa | 3240 |
| aaatgcatta | gtcacaaaag | atattttttc | ttacatcaca | ccaggcttta | agatattttc | 3300 |
| tgccatgcct | tgcccttagt | atcaatatatt | taaaaatttc | actgtaattt | tataactgcc | 3360 |
| taataacaaa | ctgaaaacag | aacttctgag | tttcccttat | agaaagggcc | acagaaaagg | 3420 |
| ccttaagaaa | gaaagattca | cttactttct | caaactttgc | aatccgtaat | ttaactttaa | 3480 |
| tttgtatttt | atgcatgaat | tttacttgta | aagacaaaat | taaatgtgct | tcccctacat | 3540 |
| cccaactcca | agaagtcaca | ggaatagact | ctttctaata | gtgcagtga | atatattttt | 3600 |
| aaaccataaa | ctcacatata | tatatatata | tatatatata | tatatatata | tatatgtacc | 3660 |
| ttgtaaacaa | gagggttaaga | aatttttatag | cacattttta | aattattttc | ttcctcaaat | 3720 |
| ctatcatgtg | gtaacttaat | ctttaacaga | ctttagggcc | ctaaactaaa | attataagag | 3780 |
| ctatttcatt | tgcttggtgt | actgggtaat | tgtagaatc | acaacaata | aatcatgaaa | 3840 |
| atcctttctg | ggtttggtgt | ttctaaagga | aataatatgt | agcttttgta | ttttgtcttt | 3900 |
| taattggctc | cctggtatct | tcagaatgat | gtctagattc | ttcagttctg | accacacctac | 3960 |
| tcttctcaca | ttacttccca | tcactgttgt | cacaaacctt | accctatagc | taaagattgc | 4020 |
| tactttagtt | tattacattc | agaactttct | tcactttgtt | cacctgtagc | ccatctttgt | 4080 |
| tctatcatat | ctgaatggta | taataattct | aaacaacttt | caaggttcac | ctcatctgtc | 4140 |
| attctttgta | taagcttgcc | cttatatcct | ctcttcccca | aacctaaaag | taaaactttc | 4200 |
| taccactggg | gcttcagata | cttttaatac | tacttatttg | aatttcatta | tttttattat | 4260 |
| agtttattat | tgtcttcata | gctgagtact | cttaaaatta | ctgtttatta | taagtgaatg | 4320 |
| tcttacagaa | caaactcaaa | gtcaatgctt | cttttgcatg | tgaataatca | agctattttt | 4380 |
| ttgtcatcat | tacttttagta | agtaacatta | ttttatatga | agaatagagt | gtatatacat | 4440 |
| aaacccatgt | gccagctgcc | attgcactgc | ctcacatttt | ccttttagatg | tttgagcata | 4500 |
| gttttaatga | ctgtttgaaa | tctctgtctc | ctagttccaa | atatgggtca | tcttggagtt | 4560 |
| ggcttctcatt | gggtcctttt | ctcttccagta | tgagtcataa | ttttcctggt | tctctatatg | 4620 |
| cctagtaaat | tagaattttta | ttctagatga | tgaataatgt | gtggcagaga | ttctggattc | 4680 |
| tgttacattc | catcaaagag | tattgatatt | ttgtatatat | atttacaat | gtacatgtac | 4740 |
| acaataataa | aaataatttt | tttctcagac | ctgctgcaa | tcatgaa | | 4787 |

```
<210> 12063
<211> 178
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12063 | | | | | | |
| tggcaggtgt | ccctctggga | tgaagcttcc | agaggaagga | gcaggcagca | attttcactg | 60 |
| ttctgcagcc | tctgctggtg | ataccaggc | aaacagggtc | tggagtggac | ctctagcaaa | 120 |
| ctccagcaga | cctgcagtag | aggggcttga | ctgttagaag | gaaaactaac | aaacagaa | 178 |

<210> 12064
<211> 178
<212> DNA
<213> Homo sapiens

<400> 12064
tggcaggtgt ccctctggga tgaagcttcc agaggaagga gcaggcagca attttctactg 60
ttctgcagcc tctgctggtg ataccagggc aaacaggggc tggagtggac ctctagcaaa 120
ctccagcaga cctgcagtag aggggcttga ctgttagaag gaaaactaac aaacagaa 178

<210> 12065
<211> 4327
<212> DNA
<213> Homo sapiens

<400> 12065
atctcccggt ttatgctaata aatctttagt aaatttaggt taaatacaga ccaagagcct 60
tcaaagccct cagtaagttg caatacttaa tttctgcaac agctaaggac tgcaaaaccc 120
cactctgcat caactgaacg caaatcagcc actttaatta aggtaagccc taagtagacc 180
aatggggact taaaccacaca aacacttagt taacagctaa gcaccctgaa tgcaactggg 240
cttcaatgct gacttctgcc cgccgcccggg aaaaaaggcg ggagaagccc cggcagggtt 300
gaagctgctt ctctgaattt gcaattcaat atgaaaatca cctcagagct ggtaaaaaaga 360
ggcttaaccc ctgtcttttag attaacagtc caatgcttca ctcagccatt ttacctcacc 420
cccattgatg ttctccgacc gttgactatt ctctacaaac cacaaagaca ttggaacact 480
atacctatta ttccggcgcat gagctggagt cctaggcaca gctctaagcc tccttattcg 540
agccgaactg ggccagccag gcaaccttct aggtaacgac cacatctaca acgttatcgt 600
cacagcccat gcatttgtaa taatcttctt catagtaata cccatcataa tcggaggcctt 660
tggcaactga ctagtcccc taataatcgg tgccccgat atggcgtttc cccgcataaa 720
caacataagc ttctgactct taccctctct tctcctactc ctgctcgcat ctgctatagt 780
ggaggccggc gcaggaacag gttgaacagt ctacctctcc ttggcaggga actactccca 840
ccctggagtc tccgtagacc taaccatctt ctctctacac ctagcaggta tctcctctat 900
cttaggagcc atcaatttca tcacaacaat tattaatata aaacccctg ccataaccca 960
ataccaaacg ccccttttct tctgatccgt cctaatacaca gcagtcttac ttctcctatc 1020
tctcccagtc cttagccgctg gcatacactat actactaaca gaccgtaacc tcaacaccac 1080
cttcttcgac ccagccggag gaggagacc cattctatac caacacctat tctgattttt 1140
cggtcacccct gaagtttata ttctcatcct accaggcttc ggaataatct cccatattgt 1200
aacttactac tccggaaaaa aagaaccatt tggatacata ggtatggtct gagctatgat 1260
atcaattggc ttcttagggt ttatcgtgtg agcacaccat atattttacag taggaataga 1320
cgtagacaca cgagcatatt tcacctccac taccataatc atcgctatcc ccaccggcgt 1380
caaagtattt agctgactcg ccacactcca cggaagcaat atgaaatgat ctgctgcagt 1440
gctctgagcc ctaggattta tttttctttt caccgtaggt ggcctgactg gcattgtatt 1500
agcaaactca tcaactagaca tcgtactaca cgacacgtac tacgttgtag cccacttcca 1560
ctatgtccta tcaataggag ctgtatttgc catcatagga ggcttcattc actgatttcc 1620
cctatttctca ggctacaccc tagaccaaac ctacgcaaaa atccatttctg ctatcatatt 1680
catcggcgta aatctaactt tcttcccaca acactttctc ggcctatccg gaatgccccg 1740
acgttactcg gactatcccg atgcatacac cacatgaaat atcctatcat ctgtaggctc 1800
attcatttct ctaacagcag taatattaat aattttcata atttgagaag ccttcgcttc 1860
gaagcgaaaa gtcctaatag tagaagaacc ctccataaac ctggagtgc tatatggatg 1920
ccccccaccc taccacacat tcgaagaacc cgtatacata aaatctagac aaaaaaggaa 1980
ggaatcgaac ccccaaaagc tggtttcaag ccaaccccat ggcctccatg actttttcaa 2040
aaagatatta gaaaaacat ttcataactt tgtcaaagtt aaattatagg ctaaatocta 2100
tatatcttaa tggcacatgc agcgcaagta ggtctacaag acgctacttc cctatcata 2160
gaagagctta tcatctttca aacactcaca acaaaaactaa ctaataactaa catctcagc 2220
gtcctgtacg ccttttctct aacactcaca acaaaaactaa ctaataactaa catctcagc 2280
gctcaggaaa tagaaaccgt ctgaactatc ctgcccgcga tcatcctagt ccttatcgcc 2340
ctcccatccc tacgcacct ttacataaca gacgaggtca acgatccctc ctttaccatc 2400
aatcaattg gccatcaatg gtactgaacc tacgaataca ccgactacgg cggactaatc 2460
ttcaactcct acatacttcc cccattattc ctagaaccag gcgacctgcg actccttgac 2520

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|------|
| gttgacaatc | gagtagtact | cccggttgaa | gccccattc | gtataataat | tacatcacaa | 2580 |
| gacgtcttac | actcatgagc | tgtccccaca | ttaggcttaa | aaacagatgc | aattcccgga | 2640 |
| cgtctaaacc | aaaccacttt | cactgctaca | cgaccagggg | tatactacgg | ccaatgctct | 2700 |
| gaaatctgtg | gagcaaacca | cagttttatg | cccacgtcc | tagaattaat | tcccataaaa | 2760 |
| atctttgaaa | tagggcccgt | atttacccta | tagaccccc | tctaccccct | ctagagccca | 2820 |
| ctgtaaagct | aacttagcat | taacctttta | agttaaagat | taagagaacc | aacacctctt | 2880 |
| tacagtgaaa | tgccccaaact | aaatactacc | gtatgaccca | ccataattac | ccccatactc | 2940 |
| cttacactat | tctcatcac | ccaactaaaa | atattaaata | caaattacca | cctacctccc | 3000 |
| tcaccaaaagc | ccataaaaaa | aaaaaactat | aacaaaccct | gagaacccaa | atgaacgaaa | 3060 |
| atctgttcac | ttcattcatt | gccccacaa | tcctaggcct | accgcgcga | gtactgatca | 3120 |
| ttctattttcc | ccctctattg | atccccacct | ccaaatatct | catcaacaac | cgactaatta | 3180 |
| ccaccaaca | atgactaatc | caactaacct | caaaacaaat | gatagccata | cacaacacta | 3240 |
| agggacgaac | ctgatctctt | atactagtat | ccttaatcat | ttttattgcc | acaactaacc | 3300 |
| tctctggact | cctgcctcac | tcattttcac | caaccaccca | actatctata | aacctagcca | 3360 |
| tgggcatccc | cttatgagcg | ggcgcagtga | ttataggctt | tcgctctaag | attaaaaatg | 3420 |
| ccctagccca | cttctttacca | caaggcacac | ctacaccct | tatccctata | ctagtтата | 3480 |
| tcgaaacctc | cagcctactc | attcaaccaa | tagccctggc | cgtagccta | accgctaaca | 3540 |
| ttactgcagg | ccacctactc | atgcacctaa | ttggaagcgc | cacactagca | atatcaacta | 3600 |
| ttaaccttcc | ctctacactt | atcatcttca | caattcta | tctactgact | atcctagaaa | 3660 |
| tcgctgtcgc | cttaatccaa | gcctacgttt | tactacttct | agtaaagctc | tacctgcagc | 3720 |
| acaacacata | atgaccacc | aatcacatgc | ctatcatata | gtaaaaccca | gccccggcc | 3780 |
| cctaacaggg | gccctctcag | ccctccta | gacctccggc | ctagccatgt | gatttcaact | 3840 |
| ccactccaca | accctcctca | tactaggcct | actaaccaac | acactaacca | tataccaatg | 3900 |
| atggcgcgat | gtaacacgag | aaagcacata | ccaaggccac | cacacaccac | ctgtccagaa | 3960 |
| aggccttcga | tacgggataa | tcctatttat | tacctcagaa | gtttttttct | tcgcaggatt | 4020 |
| tttctgagcc | ttttaccact | ccagcctagc | tcccaccccc | caactagggg | gacactggcc | 4080 |
| cccaacaggc | atcaccccgc | taaattcccc | agaagtccca | ctcctaaaca | catccgtatt | 4140 |
| actgcataca | ggggatcaa | tcacctgagc | tcaccatagt | ctaatagaaa | acaaccgaaa | 4200 |
| ccaaataa | caagcactgc | ttattacaat | tttactgggt | ctctatttta | ccctcctaca | 4260 |
| agcctcagag | tacttcgagg | ttaaaatatt | agatatttcc | cctgatacag | ggctcaatct | 4320 |
| ttttctt | | | | | | 4327 |

```
<210> 12066
<211> 389
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|-----|
| <400> 12066 | | | | | | |
| tttaattata | ctttaagttt | tagggtacat | gtgcacaacg | tgcagggtctg | ttacgtatgc | 60 |
| atacatgtac | catgttggtg | tgctgcaccc | attaactcgt | catttaagat | tagtttgtgg | 120 |
| ctctaatttt | cttgactatt | gttttaagct | attattacct | tcttacttat | caggggtgctc | 180 |
| atctactttt | tgaggctagc | cagggtggctg | gaattttcct | tggaggggact | caagagtttc | 240 |
| ctttattttt | catgccttaa | atgggtctgt | tctccctctt | caaagctcaa | gctcttaagg | 300 |
| actatgctat | tgttagattt | tctgtattgg | agcagtcctt | cctcctact | caagaacacc | 360 |
| ccttccttcag | acagcctggc | tgggtcttc | | | | 389 |

```
<210> 12067
<211> 10166
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 12067 | | | | | | |
| gctgaggagt | acctgtcctt | cttccagttt | ggaggccaga | gtctggaccg | agccctccgg | 60 |
| taatgtcttt | gggcctctc | tggggaggct | gtggaggatg | gcatggggca | gtggcaccag | 120 |
| cctgaggctg | gattctgatt | ggccctaagc | tcccgggctc | tctccttgac | cctggccctc | 180 |
| ctttgcagga | gcttccctca | ggccttgggt | ctcagtgggg | agactcagga | acgggagcga | 240 |
| atcctctacc | agttctccag | acgcttccac | cattgcaatc | cggggatctt | ccccctagta | 300 |
| ggtaggggagg | ggctgtccct | gacagcaaag | cagggaaact | tgggggtgcc | catgtctgct | 360 |
| tgggagttca | gtaggtgaca | gtgaactggt | gggagtggtg | tgggggtctgt | ggaqaatqqa | 420 |

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|------|
| agcattccag | gggttattcg | gttacccccac | gcagtgtggg | cagaggaaac | aggagccctg | 480 |
| gttccaatga | gctttctctc | cacttaccta | tctctggggg | agattctgtg | cacaccttga | 540 |
| catgtgcaat | catgctgctt | aacacggacc | tgcatggaca | ggtaagacgg | tggagagagt | 600 |
| ccctgtggga | actgaggctg | taacaagggg | tgcggggagg | agaagaccag | aggcctgaga | 660 |
| cggggcaggg | aacacccctg | agggatgtgg | gcctggggag | ctggaaaggg | ttccatgggt | 720 |
| ctgggctggg | aggttattct | attgggatgg | ggtgtgtgtc | cgagtcatcc | cacttctccg | 780 |
| tggctacaga | acattgggaa | gagcatgagc | tgccaggaat | tcataacca | cctgaatggg | 840 |
| ctgaggggatg | gcgggaaact | ccccaaaggag | ctgctgaagg | tatgtgccac | gggtgtctct | 900 |
| tatgagcctc | atgtaggacc | tggagccttg | gttctttgtt | ccaagggaga | tgctgagctt | 960 |
| gggactggct | ttgccaaaat | atccttgaga | gaacaggact | tgttttattg | agggctagta | 1020 |
| aaagtgtatt | ccctggcggg | cagcatcaga | agcatcttgg | aatttgttat | ccatgcaaat | 1080 |
| ctgcaggctc | cctgtgctgg | acttattgaa | tcagactctc | tgagactggg | accctaataa | 1140 |
| tattttctta | agttttcagg | tcattctttac | cccttcaaag | tctgagaagg | gcaaagctac | 1200 |
| acatgggtgaa | agctctggagc | tcagacttgg | gagcctgggt | ttcctggggt | tgaattctag | 1260 |
| tcttgggcaa | tttgcccect | cttgcccaac | tcaggttctt | cctgagagta | ttaaccactt | 1320 |
| accatgccat | tatcaagatg | aaatgaaatc | ttccaagtgc | tcagcacggt | gttggcaca | 1380 |
| tagcatgtgt | gtcataagca | attaaaatca | tttgctgttt | catcacagtc | acgcatcact | 1440 |
| taacgatgaa | gggtgtgttct | gagaaatgca | tcgttgggca | ttttcactat | tgtgtgaaca | 1500 |
| ttatagagtg | aacctacaca | aacctagatg | tacagctcac | tgacaccag | ggctatatgg | 1560 |
| gatagtctat | tgctcctggg | ctacaaacct | gtatggcatg | ctgctgtact | taatactgca | 1620 |
| agcaattctc | acacagtgtg | gtatttgtat | atctaaacat | agaaaaggta | caataaacac | 1680 |
| atgatagaaa | agattaaaaa | tgatacatct | gtataggaca | gctccatcac | aaccttacag | 1740 |
| gaccactatc | atgtatgcag | ttcatccttg | actgaaccat | catgatgctg | ttatatggta | 1800 |
| catggctgta | cttcatgaac | atttactgaa | cacctactat | gtgccagact | ttttgctagg | 1860 |
| caccgcaaga | gctatagaag | caagcgagat | aacatctacg | ttaatatgtc | aaacttttag | 1920 |
| tgcatcattc | attcattttac | tgcacattta | ttgtggggat | tggtcagcca | gtttcttctc | 1980 |
| catcagatcc | ctcccagtag | aatgccatgt | aggtaattca | tttctcctcc | atgagaacta | 2040 |
| gttaaggcct | cagtaagcat | gggcaggaca | gggacttgtc | tgccctgggt | atcatctttt | 2100 |
| tttttttttt | gagatggagt | ctcatctcgc | actgtcgcgg | gagtgcagtg | gtgtgatcct | 2160 |
| ggctcactgc | aacctcggc | tccegggttc | aagcaattct | cttgcctcag | cctcctgagt | 2220 |
| agctgggatt | acaggtgtgc | accaccacgc | ccagataatt | ttttgtattt | ttagtagaga | 2280 |
| cagggtttca | tcatgtttgg | caaggctggg | ctcgaactcc | tgacttcaag | tgatccaccc | 2340 |
| gcctcggcct | cccaaagtgc | agggattaga | gggtgtagcc | actgtgcctg | gcagggtcac | 2400 |
| tttatgtctc | tagcaccag | catagtgtct | gttgctggga | aatactccag | aaatactttg | 2460 |
| ttgcacggat | ggatggatgg | atggatggat | ggatggatgg | atggatggat | gcttgcttac | 2520 |
| tcaaggagga | agggcaccta | tgttgtgggt | ggaggaggca | ggctgtacac | atgcccctat | 2580 |
| ctacactctg | ccagacaaga | agacttttag | ctccacagcc | ctgaggctcc | cctgcccacc | 2640 |
| tgtgtgcttc | tgttccagg | ctctactgg | tctatccgca | gcgagaagct | ctgagtggcc | 2700 |
| gtgtgagtga | gactcccttt | ccctctctcc | tctacccct | ctccccgtc | tttggaactgt | 2760 |
| cctccctctg | tcaccaccc | gagagttaga | gaaactcaga | tagtgctccc | cttggagtga | 2820 |
| ggcaaagcca | gaggcagggc | tctggggaga | gagcatagag | gagcccaagt | aataccggag | 2880 |
| ggccagaggt | agtggggcgt | ggggtatggc | agaattttca | ggaattgatg | ggttcactgt | 2940 |
| gaaggaggac | tccttgtggg | gggtcctggg | gtgtggcttc | ccaggaaaag | agaggttgct | 3000 |
| aaggctctgg | gaggaatgg | atactccca | gttctctttg | catagttagc | acttccagcc | 3060 |
| cgattctctg | atgttccagg | atgaagaaga | cacagccaga | cctgagaagg | cccagcgtc | 3120 |
| cctgccagct | ggcaagatga | gcaagccct | ccttcagctg | gctcaggatc | ccacagtgcc | 3180 |
| cacctacaag | cagggcatcc | tggctcggaa | aatgcatcaa | gatgcagacg | gcaagaagag | 3240 |
| tgagtgtctg | ctgcccacaa | acaggggtgg | gtgctgggag | cagccctgct | cagggacctg | 3300 |
| tgccgatgca | tgacaggtg | tgacagagag | cagcccgcgt | tgaggacagg | cagccagccc | 3360 |
| atgttctctc | ctcagtgcgt | actgaacagt | gacctgtgct | tggatgctgt | gtgaggcact | 3420 |
| agagggtagg | taggagaacc | cagacaaaac | aggcctagtt | attcctgggc | cccagagtcc | 3480 |
| ctgtagtaag | gtagagatta | gacaagtgtg | tcaatgtctg | cgaaaaaaat | gtagcaagag | 3540 |
| ctgagtgtct | aggggctgaa | tcaagttagg | agaaaaaggt | ttttggtttt | gctttggaag | 3600 |
| cgggatgtgg | ctacagggag | aggtaaggct | tctggtaagt | gatggtatct | gcgctgaaat | 3660 |
| ttggaggaga | agagggtctg | gaattttggaa | gctgggcaga | gggcatcccc | cacagagaaa | 3720 |
| acagcaagcc | gagtttgctc | agaacatggg | gtgtgtgaaa | gggaggtaca | cttgaggcaa | 3780 |
| aattgccagg | gcctgcattt | gggccttatt | ccacaggcag | ctgaaggctt | ttgattatgg | 3840 |
| caccaacatg | tccagagtgg | tgatctcagc | agactaatgt | | | |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gctctgcgcc | cttagagcccc | tctagatggg | tatgcaaggt | caagatcatc | ctgcagggac | 4140 |
| tagaaagctg | tctgggagga | gctgtgtttg | tgcctgggtg | tttgccacta | cttggggtag | 4200 |
| tgggtgtgtg | tttggagttg | gagagaagat | gatatgtatg | aatatctata | tttggatgtg | 4260 |
| agtggttcta | tggttttgtt | tccagcgggc | attgcctgtg | tgtggagaga | ctctatatgt | 4320 |
| ttgtttacga | ttgtatgtgt | tttcttgtgt | tggcatgttc | tgcattttgtg | tgcatacctgg | 4380 |
| tgagagactg | gaggtgggtg | gagggacag | gggcatatgc | acacttgctg | gtgtctgagt | 4440 |
| gtgtctggat | gctgggtccc | ccacctacaa | cattttgtgt | ctgttctgtg | aacagcgcca | 4500 |
| tggggcaagc | tgggttggaa | gatgttccac | accttactgc | gagggatggg | tctctacttc | 4560 |
| ctgaaggtag | gaaaggagcc | aacacccctg | tcagaatggg | agactgagag | aggcccagaa | 4620 |
| cagtctggag | ggtgggcagc | tgatgataac | ctcttctctg | agccccctgtg | actggtagca | 4680 |
| gggagaagac | cactgtctgg | agggggagag | cttgggtggg | cagatgggtg | atgagcccgt | 4740 |
| gggggtgcac | cactcgctgg | ccacccccgc | cacgcattac | accaagaagc | cgcacgtctt | 4800 |
| ccagctgcgc | acggctgact | ggcgccctcta | cctcttccag | gcaccgtaag | tccttgggggt | 4860 |
| gggagacgtg | tggcaagcct | tgcctgcctt | agttctctct | cccctgacc | tgctgacacc | 4920 |
| taggcttgt | ggggcccagg | gggtccctgg | tgggaatggc | cgtatgatca | gaactcttta | 4980 |
| gaaagcggca | gcaggaagag | gagctggggc | ccagggatga | agcccaggca | tgccctactt | 5040 |
| cctccccatc | cttggccaac | tttggcagca | cagtatgcct | tttcttgttc | agtgggataa | 5100 |
| agcctcccag | ttcagaacac | aggagttccg | ggacagttgc | taatgattga | ccatatctgg | 5160 |
| catttgttat | gaaatctgtc | accttctcag | attgtcctct | atagttttta | ttttttattt | 5220 |
| ttgagacaga | gtctcgctct | gtcgtccttg | ctggagtgc | gtgactctca | cctcggctca | 5280 |
| ctgaaccgc | cgcttcccgc | gttcaagcga | ttctcatgcc | tgagcctccc | gagtagctgg | 5340 |
| gattaagagg | cgggccaccg | cgcttggcta | atttgtgtat | tttttagtaga | gacgggggtt | 5400 |
| cacctgttg | accaggctgg | tctcgaactc | ctgacctcag | gtgactccgc | tgccaaggcg | 5460 |
| ttgccaccgc | accgggcctc | caaattttcc | tctttattga | taagaaatgc | cacggtcaga | 5520 |
| ggtcgggtgc | ccggctagt | gcagggtgt | aactatggga | ggctgagttc | tgagcagctg | 5580 |
| gccagctgtg | caagcagcca | caggaggggg | cgggaggagg | gtgacaggac | ggactctgtt | 5640 |
| gtcccggggg | accaacgacc | tcctttgccc | cagcactgcc | aaggagatga | gtcctgggat | 5700 |
| cgcgcgcatc | aacttggctg | cggccccacg | actccgcgcc | gcccttcccc | gccgctgtgg | 5760 |
| gtccccagc | cagattcgtg | cggcccatcc | tgcccgtggg | ccccgcccag | agctccctgg | 5820 |
| tacggcctcc | gggaaggggg | ggggtccggc | ggaactggga | atgtgcacct | ggagccccag | 5880 |
| gactaactcg | gggaggctgg | aggcgggctg | cgcaacttgg | ctgggcaaccg | agggcccgag | 5940 |
| gggggcggcg | cgctggcccc | ggaaagcagc | ggtggggacg | ctcgagacag | cgccccctac | 6000 |
| cgcccgtgc | tcgcagagga | gcagcatcga | tcccacgaga | actgcctgga | cgtgcgcgac | 6060 |
| gacgactgct | gaatctacag | aggaacctgc | cggaaagggc | gggccgtggc | cgcgagctgg | 6120 |
| aggagcaccg | ctgcggaagg | agtacctgga | gtacgaggtg | agcggccgag | cccacctcac | 6180 |
| cgccgtgcg | cagcgccctc | tccggccctc | cgtggccgcg | tcggctccctg | cagccgtcac | 6240 |
| tgccctgacc | gcgcgggggc | ggggagaggg | gctttcgtgc | gggcggggcg | cgcggtgcgc | 6300 |
| gtctgcaaag | gggcgggggc | tcccacatgg | acaccgcgt | gcacgggcgt | gcacaaagag | 6360 |
| tgtgtgtccc | cacgcactta | ggcctgtcgc | ctctcgtcct | gggggcacat | agcagctgct | 6420 |
| tgtctggaaa | cacccatagc | agatgttatt | ttacagtttt | cttttctcct | aagagtatat | 6480 |
| ttggcttttc | ccaagttgaa | gggaaaactg | tatttcagct | caactgttcc | ttctaatacc | 6540 |
| taccaaatat | taataggtag | tatggatgga | gcttgtcttc | cttgcattga | ttgtctcatt | 6600 |
| caattaacag | ctctgggtag | gtcctgttat | cctcatttta | cagatgagga | aactgaggca | 6660 |
| cagagaaatt | aaactactct | tccaaactct | gtaaaattac | atgtctgtct | aaatgccccg | 6720 |
| tttatggtct | taactaagaa | atgacctgtg | tttttgtttt | ttgtttttgt | ttttgagaca | 6780 |
| aagtctcgct | ctgtcgccca | ggctggagtg | cagtggctcg | atctcagctc | ctcgcaacct | 6840 |
| cgccctccca | ggttcaagcg | attctcctgc | ctcagcctcc | cgagtagctg | ggattacagg | 6900 |
| tgtgagccac | cacacctgga | taagttttgt | attttttagta | gagacagggg | ttcaccatgt | 6960 |
| tggcaaagct | ggacttgaac | tcctggcctc | aagtggtctg | cctgcctcag | ccttccaaag | 7020 |
| tgctgggatt | acaggtgtga | tccactgccc | cggccagtaa | tgacttttgt | gactctacag | 7080 |
| cccatgttga | aatgttttat | cccttagtct | cccccaacc | tcacccatcc | acccacactc | 7140 |
| cccaattctg | ctttgtgtgt | acgtcagttc | atctgggatc | ctaaccactgg | gtgcctgctt | 7200 |
| cagggatcct | gggtgcctgc | ttagggtagg | ggcccactgg | caggaagggg | taggtgaatg | 7260 |
| caatgtgaaa | atagagggaa | tcagaggcca | cccagaggca | gagaccagga | agtgaggatc | 7320 |
| aacatcgctt | cctgcctgtc | cccgtgtgc | ccgcatgcag | ccctctgcct | gtctttcaag | 7380 |
| gtcccaggct | atcccttggc | ttgttggttg | tatccatggc | tgtgaactcc | ccacttctca | 7440 |
| gaggcctcag | ggtgtggctg | tgaggaccca | acctcttctc | cccactgacc | agctgggacc | 7500 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| gctgtttgtg | tgtagggctg | caaagatctc | aggcatagtg | ggtgacacat | cttttagtgc | 7800 |
| ctcaaagatg | gaacatggca | tagagatggt | agttacagca | ctccaagggg | ttggttatta | 7860 |
| ttagaacagg | gctgggctga | tatgtgtcat | tataatacta | tccagagggtg | tgctctgcag | 7920 |
| tctgcttata | caagcattat | actgacactc | acgggttggtc | cagccctctt | tctgtcgagg | 7980 |
| tctgtatcgc | catagcttca | tgtacctgtg | agctgtccct | cacgattcta | gcctcctccc | 8040 |
| aacctggagc | caggatgggtg | ctaagggtggt | ggggcctgtg | tgttgacaaa | aacctcgctac | 8100 |
| gagacctacg | tgcagctgct | ggtggcccg | ctgcaactgc | cctctgatgc | tctggacctg | 8160 |
| tgggaggagc | agctggggag | ggaagctgga | ggcactcggg | agcccaagct | cagcctgaag | 8220 |
| aagtcccact | cgagcccgtc | cctgcaccag | gatgaggctc | ccaccacggc | caaggtgaag | 8280 |
| cgcaacatct | cagagcgcag | aacctaccgg | aagatcatcc | ctaagcggaa | cgcgaatcag | 8340 |
| ctgtgaagcc | agcaccacct | cagagacact | gttccctgct | ccagggtaga | cctgagatga | 8400 |
| acctccctgg | aggagactta | tttcaatgag | tccaccatga | cggatgaggc | acctcctttc | 8460 |
| cctgtgaag | gacaaacctt | gtttccctgt | ggccctcatt | cttgtgtctc | ctgaagcttt | 8520 |
| cctaataattg | ctgtgtctccc | caccaccccc | atggcagctc | ctccgcagcc | ccagtccttg | 8580 |
| gccacgcccc | agggaagagg | gaggtgagga | cttgactttc | ctcccagagc | tcagcccatg | 8640 |
| tcacctcca | ggccccagaa | tccagagtgg | cctcatttcc | tagacttgct | gagaactcag | 8700 |
| cacttggttg | agaaccagtg | cttatgtggt | gtgcccttgg | cttctggggg | agagcttggg | 8760 |
| gcagcagagg | cccctgggca | gcccagccag | gggagccaca | gccccaaagg | tggctctgct | 8820 |
| ctgggaatta | ggtgaccttc | ctggggaggc | cccaggagag | tgaatcaggg | actcttgaga | 8880 |
| aattcctaac | cagcctcctg | tgacccaggg | agcagggtcg | ctaaggctct | gcccactgag | 8940 |
| gggacagcct | tctgggcagg | gacctcgggg | ggcttcaagg | gctctgcacg | gctgtggggc | 9000 |
| cctgtgcctt | tgtctccttg | tgtctccttt | ccccggaagt | agatgaaaca | gtctcacata | 9060 |
| cccaactgct | catcaacaga | gcagagctga | tggcatgagt | gagggctggg | cgggggtggg | 9120 |
| cctccagagc | tttgcaggga | accttggaac | cctaggaaca | aggagccttt | gttccaacag | 9180 |
| agcagagaag | gaggttctct | atgttcagac | cactggagag | gatagagagg | taaaagggtg | 9240 |
| cgacagtttc | ccttaggggt | ctgcctggca | ggagccacag | ctcaggagag | ttgtgagggg | 9300 |
| tgggacggag | gctggcgacc | aggcgaggcc | taggacaggc | tcgggagact | tttctgtgct | 9360 |
| cctttctaca | catgccttaa | accttccttc | ctgtgggggtg | cctggacccc | ttccccatct | 9420 |
| ctggcagctc | agaggggtct | tgtgtctctc | ccctgggaaa | tcccctcatc | ctgccctctg | 9480 |
| gctgctccc | agctgggctt | gttctctgag | ggagggtccg | gagactcatg | gacttggggc | 9540 |
| tctgctgta | ggaaggaggc | tgggcggagg | accagccacc | attgtctctg | ttcagccaag | 9600 |
| tgtgcaagta | ggctgcccgc | caagaggggg | cctctgctac | ccgctgctgc | ctgccggctg | 9660 |
| acacactgcc | tccccagcct | tcctgctagg | ccacctcct | cccttcccat | gcttgtaacc | 9720 |
| agctctgggg | cttgcacctc | cacaaagtaa | ggttggccct | tggaggccat | gtttgggtct | 9780 |
| ccggccaggg | cctagggtta | ggccatgcac | ccaatgggtg | cacaataaat | aacagggtcaa | 9840 |
| caaagaggga | ggtgtgtcag | tgtgtgagga | agggagggtca | ggcagctagg | accacctgca | 9900 |
| gtgtggcagg | cttcatccct | ctttgtctca | agtgtgtatg | tgtgtctgtg | catgtgtgta | 9960 |
| gtgtctgtgt | ctgtgtgttc | atgcataatg | aggagtcaca | cggctcatagg | ccatcaaagc | 10020 |
| tggaggagac | ctcagaatca | ttcattcacc | tacttgctca | tttattcatt | cattcatttt | 10080 |
| gcagataata | tgggacgctt | tctatgtgcc | agtaccaggg | gattcacaaa | tgaattaaac | 10140 |
| atgtccctga | ctccatgagt | tgacaa | | | | 10166 |

<210> 12068

<211> 249

<212> DNA

<213> Homo sapiens

<400> 12068

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| atctcccctc | ctaacttttc | ccccataccc | tcaactgtatc | tgtctgcttac | tctcagtcac | 60 |
| ggtcctcatg | ctctccacac | ccttggtcct | tgggtccccc | tgcccttgcca | accagactcc | 120 |
| acaggctctc | cccagtgctc | cccagtgctc | actgaatagg | gtagcagggc | ataccagacc | 180 |
| ctggctgccc | ccttgctctg | tcaggaccca | aggcccagcg | tgccctgcacc | cttcccttgc | 240 |
| tcaccccca | | | | | | 249 |

<210> 12069

<211> 315

<212> DNA

<213> Homo sapiens

<400> 12069

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gtttcctgct | ctcagttttac | agaggcactt | ttatcttgct | ggggaagtgt | gctgaaaaga | 60 |
| cacattccca | gcccacaccc | agggatgctg | attcagtcag | cctgggtcag | agggatagat | 120 |
| aaatatgttt | aaagctcctt | gggtaattct | gatgtgtaag | tagcagttag | ctgcagtaga | 180 |
| gtccaattgc | ctcatttgat | tgaagtggaa | tcccagcatc | aagtggacat | gacttttggc | 240 |
| ccaagactga | tgcttacaaa | ctaagtggag | taggttattt | gacctactg | aacatgcac | 300 |
| cttttttttt | ttttt | | | | | 315 |

<210> 12070

<211> 10166

<212> DNA

<213> Homo sapiens

<400> 12070

| | | | | | | |
|------------|-------------|------------|------------|-------------|-------------|------|
| gctgaggagt | acctgtcctt | cttccagttt | ggaggccaga | gtctggaccg | agccctccgg | 60 |
| taatgtcttt | gggcccctct | tggggaggct | gtggaggatg | gcatggggca | gtggcaccag | 120 |
| cctgaggctg | gattctgatt | ggccctaagc | tcccgggctc | tctccttgac | cctggccctc | 180 |
| ctttgcagga | gcttccctca | ggccttggtg | ctcagtgggg | agactcagga | acgggagcga | 240 |
| atcctctacc | agttctccag | acgcttccac | cattgcaatc | cggggatctt | cccctcagta | 300 |
| ggtagggagg | ggctggccct | gacagcaaag | cagggaact | ttgggggtgcc | catgtctgct | 360 |
| tgggagttca | gtaggtgaca | gtgaactggt | gggagtgtgt | tgggggctgt | ggagaatgga | 420 |
| agcattccag | gggttattcg | gttaccctac | gcagtgtggg | cagaggaaac | aggagccctg | 480 |
| gttccaatga | gctttctctc | cacttaccta | tctctggggg | agattctgta | cacaccttga | 540 |
| catgtgcaat | catgctgctt | aacacggacc | tgcatggaca | ggtaagacgg | tggagagagt | 600 |
| ccctgtggga | actgaggctg | taacaagggg | tgcggggagg | agaagaccag | aggcctgaga | 660 |
| cggggcaggg | aacacccctg | agggatgtgg | gcctggggag | ctggaaaagg | ttccatggtt | 720 |
| gctggctggg | aggttattct | attgggatgg | ggtgtgtgct | cgagtcaccc | cacttctccg | 780 |
| tgggtacaga | acattgggaa | gagcatgagc | tgccaggaat | tcataaccaa | cctgaatggg | 840 |
| ctgagggatg | gcgggaactt | ccccaaggag | ctgctgaagg | tatgtgccac | ggggtcttct | 900 |
| tatgagcctc | atgtaggacc | tggagccttg | gttctttggt | ccaagggaga | tgctgagctt | 960 |
| gggactggct | ttgccaaaat | atccttgaga | gaacaggact | tgtttattga | agggctagta | 1020 |
| aaagtgtatt | ccctggcggg | cagcatcaga | agcatcttgg | aatttgttat | ccatgcaaat | 1080 |
| ctgcaggctc | cctgtgctgg | acttattgaa | tcagactctc | tgagactggg | acccttaaaa | 1140 |
| tattttctta | agttttcaag | tcattcttac | cccttcaaag | tctgagaagg | gcaaagctac | 1200 |
| acatggtgaa | agtctggagc | tcagacttgg | gagcctgggt | ttcctggggt | tgaattctag | 1260 |
| tcttgggcaa | tttgccccct | cttggccaac | tcaagttctt | cctgagagta | ttaaccactt | 1320 |
| accatgccat | tatcaagatg | aaatgaaatc | ttccaagtgc | tcagcacggg | gcttggcaca | 1380 |
| tagcatgtgt | gtcataagca | attaaaatca | tttgcgtgtt | catcacagtc | acgcatact | 1440 |
| taacgatgaa | ggtgtgttct | gagaaatgca | tcgttgggca | ttttcactat | tgtgtgaaca | 1500 |
| ttatagagtg | aacctacaca | aacctagatg | tacagctcac | tgcacaccag | ggctatatgg | 1560 |
| gatagtctat | tgctcctggg | ctacaaacct | gtatggcatg | ctgctgtact | taatactgca | 1620 |
| agcaattcta | acacagtgtc | gtatttgtat | atctaaacat | agaaaaggta | caataaacac | 1680 |
| atgatagaaa | agattaaaaa | tgatacatct | gtataggaca | gctccatcac | aaccttacag | 1740 |
| gaccactatc | atgtatgcag | ttcatccttg | actgaacct | catgatgctg | ttatatggta | 1800 |
| catggctgta | cttcatgaac | atttactgaa | cacctactat | gtgccagact | ttttgctagg | 1860 |
| caccgcaaga | gctatagaag | caagcgagat | aacatctacg | ttaatatgtc | aaacttttag | 1920 |
| tgcatacttc | attcattttac | tgcacattta | ttgtggggat | tggtcagcca | gtttcttctc | 1980 |
| catcagatcc | ctcccagtag | aatgccatgt | aggtaattca | tttctcctcc | atgagaacta | 2040 |
| gttaaggcct | cagtaagcat | gggcaggaca | gggacttgct | tgccctgggc | atcatctttt | 2100 |
| tttttttttt | gagatggagt | ctcatcctgc | actgtcgcgg | gagtgcagtg | gtgtgatctt | 2160 |
| ggctcactgc | aacctccgcc | tcccgggttc | aagcaattct | cttgccctcag | cctcctgagt | 2220 |
| agctgggatt | acaggtgtgc | accaccacgc | ccagataatt | ttttgtattt | ttagtagaga | 2280 |
| cagggtttca | tcatgttggc | caaggctggg | ctcgaactcc | tgacttcaag | tgatccaccc | 2340 |
| gcctcggcct | cccaaagtgc | agggattaga | ggtgtgagcc | actgtgcctg | gcagggtcatc | 2400 |
| tttatgtctc | tagcaccag | catagtgtct | gttctgggga | aatactccag | aaatactttg | 2460 |
| ttgcacggat | ggatggatgg | atggatggat | ggatggatgg | atggatggat | gcttgcttac | 2520 |
| tcaaggagga | agggcaccta | tgttgtgggt | ggaggaggca | ggctgtacac | atgcccctat | 2580 |
| cctacctctg | ccagacaaag | agacttttag | ctccacagcc | ctgaggctcc | cctgcccacc | 2640 |
| tgtgtgcttc | tgttccaggc | cctctactgg | tctatccgca | gcgagaagct | cgagtggggc | 2700 |
| gtgtgagtga | gactcccttt | cccctctccc | tctcaccctt | ctcccctgtc | tttggactgt | 2760 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| cctccctctg | tcacccaccc | gagagttaga | gaaactcaga | tagtgctccc | cttggagtga | 2820 |
| ggcaaaagcca | gaggcagggc | tctggggaga | gagcatagag | gagcccaagt | aataccggag | 2880 |
| ggccagaggt | agtggggcgt | ggggtatggc | agaattttca | ggaattgatg | ggttcactgt | 2940 |
| gaaggaggac | tccctgtggg | gggtcctggg | gtgtggcctc | ccaggaaaag | agaggttgct | 3000 |
| aaggctctgg | gaggcaatgg | atacctccca | gttctctttg | catagtcagc | acttccagcc | 3060 |
| cgattctctg | atgttcaggg | atgaagaaga | cacagccaga | cctgagaagg | cccagccgtc | 3120 |
| cctgccagct | ggcaagatga | gcaagccctt | ccttcagctg | gctcaggatc | ccacagtgcc | 3180 |
| cacctacaag | cagggcatcc | tggctcggaa | aatgcatcaa | gatgcagacg | gcaagaagag | 3240 |
| tgagtgtctg | ctgcccacaa | acaggggtggc | gtgctgggag | cagccctgct | cagggacctg | 3300 |
| tgccgatgca | tgcacaggtg | tgcagagaga | cagcccgcgt | tgaggacagg | cagccagccc | 3360 |
| atgttccttc | ctcagtgcgt | actgaacagt | gacctgtgct | tggtatgctg | gtgaggcact | 3420 |
| agagggtagg | taggagaacc | cagacaaaac | aggcctagtt | attcctgggc | cccagagtcc | 3480 |
| ctgtagtaag | gtagagatta | gacaagtgtg | tcaatgtctg | cgaaaaaat | gtagcaagag | 3540 |
| ctgagtgtct | aggggctgaa | tcaagttagg | agaaaaaggt | ttttggtttt | gttttggaa | 3600 |
| cgggatgtgg | ctacagggag | aggtaaggct | tctggtaagt | gatggtatct | gcgctgaact | 3660 |
| ttggaggaga | agaggggtctg | gaatttgga | gctgggcaga | gggcatcccc | cacagagaaa | 3720 |
| acagcaagcc | gagtttgctc | agaacatggg | gtgtgtgaaa | gggaggtaca | cttgaggcaa | 3780 |
| aattgccagg | gcctgcattt | gggccttatt | ccacaggcag | ctgaaggctt | ttgattatgg | 3840 |
| caccaacatg | tccagagtgg | tgatctcagc | agactaatgt | gcaagcacag | attgaatagg | 3900 |
| ctggggcgac | caggatggga | actagcattg | gctgtgaagc | cgccggggcc | ctagggctgc | 3960 |
| cttttgtcca | aggagcttag | aatggatctt | accacacaag | accaggggtg | agaggtaggg | 4020 |
| ggaaaagagg | gcaggtgttg | ctcagagtgg | ggtcacacag | gaagggcacc | ccaaagctgg | 4080 |
| gctctgcgcc | cttgagcccc | tctagatggg | tatgcaaggt | caagatcatc | ctgcagggac | 4140 |
| tagaaagctg | tctgggagga | gctgtgtttg | tgcttgggtg | tttgccacta | cttggggtag | 4200 |
| tgggtgtgtg | tttgaggttg | gagagaagat | gatatgtatg | aatatctata | tttggtatgt | 4260 |
| agtggttcta | tgggtttgtt | tccagcgggc | attgcctgtg | tgtggagaga | ctctatatgt | 4320 |
| ttgtttacga | ttgtatgtgt | tttcttgtgt | tggcatgttc | tgcatttgtg | tgcattcctg | 4380 |
| tgagagactg | gaggtggtgt | gagggacagg | gggcatatgc | acacttgctg | gtgtctgagt | 4440 |
| gtgtctggat | gctggtgccc | ccacctacaa | catttgtgtt | ctgttcctgg | aacagcgcca | 4500 |
| tggggcaagc | gtggctggaa | gatgttccac | accttactgc | gagggatggt | tctctacttc | 4560 |
| ctgaaggtag | gaaaggagcc | aacaccccctg | tcagaatggg | agactgagag | aggccagaa | 4620 |
| cagtctggag | ggtgggcagc | tgatgataac | ctcttctctg | agcccctgtg | actggtagca | 4680 |
| gggagaagac | cactgtctgg | agggggagag | cttgggtggg | cagatggtgg | atgagcccgt | 4740 |
| gggggtgcac | cactcgctgg | ccacccccgc | cacgcattac | accaagaagc | cgcacgtctt | 4800 |
| ccagctgcgc | acggctgact | ggcgccctcta | cctcttccag | gcaccgtaag | tccctgggg | 4860 |
| gggagacgtg | tggcaagcct | tgccctgccct | agttctctct | cccctgaccc | tgctgacacc | 4920 |
| tgaggcttgt | ggggcccagg | gggtccctgg | tgggaatggc | cgtatgatca | gaaattctta | 4980 |
| gaaagcggca | gcaggaagag | gagctggggg | ccagggatga | agcccaggca | tcgcctactt | 5040 |
| cctccccatc | cttggccaac | tttgccagca | cagtagcctt | tttcttgtc | agtgggataa | 5100 |
| agcctcccag | ttcagaacac | aggagtcccg | ggacagtgc | taatgattga | ccatatctgg | 5160 |
| catttgttat | gaaatctgtc | accttctcag | attgtcctct | atagttttta | ttttttattt | 5220 |
| ttgagacaga | gtctcgctct | gtcgtccttg | ctggagtgca | gtgactctca | cctcggtctca | 5280 |
| ctgcaaccgc | cgcctcccgg | gttcaagcga | ttctcatgcc | tgagcctccc | gagtagctgg | 5340 |
| gattaagagg | cgggccaccg | cgcctggcta | atttgtgtat | ttttagtaga | gacggggttt | 5400 |
| caccctgttg | accaggctgg | tctcgaactc | ctgacctcag | gtgatccgcc | tgccaaggcg | 5460 |
| ttgccaccgc | accgggcctc | caaattttcc | tctttattga | taagaaatgc | cacggtcaga | 5520 |
| ggtcgggtgc | ccggctagtg | gcagggctgt | aactatggga | ggctgagttc | tgagcagctg | 5580 |
| gccagctgtg | caagcagcca | caggaggggg | cgggaggagg | gtgacaggac | ggactctggt | 5640 |
| gtcccggggg | accaacgacc | tcctttgccc | cagcactgcc | aaggagatga | gctcctggat | 5700 |
| cgcgcgcac | aacttggtctg | cggccccacgc | actccgcgcc | gcccttcccc | gccgctgtgg | 5760 |
| gctcccagcg | cagattcgtg | cggccccatcc | tgcccgtggg | ccccgcccag | agctccctgg | 5820 |
| tacggcctcc | gggaaggggt | ggggtccggc | ggaactggga | atgtgcacct | ggagccccag | 5880 |
| gactaactcg | gggaggtctg | aggcgggctg | cgcacttggt | ctgggaaccg | aggcggccag | 5940 |
| gggggcccgc | cgcgtggccc | ggaaagcagc | ggtggggacg | ctcgagacag | cgccccctcac | 6000 |
| cgcccgtctg | tcgcagagga | gcagcatcga | tcccacgaga | actgcctgga | cgtgcgcgac | 6060 |
| gacgactgct | gaatctacag | aggaacctgc | cggaaagggc | gggcccgtgg | cgcgagctgg | 6120 |
| aggagcaccg | ctgcggaagg | agtaacctga | gtacgaggtg | agcggccgag | cccacctcac | 6180 |
| cgcgctgcg | cagcgccttc | tccgcctctt | cgtggccgcc | tcgggtccctg | cagccgtcac | 6240 |
| tgccctgacc | gcgcgggggc | ggggagaggc | gcttgctgtc | gggcccgggc | cgcgtgcgcc | 6300 |
| gtctgcaaag | gggcgggggc | tcccacatgg | acaccgcgt | gcacgggcgt | gcacaaagag | 6360 |
| tgtgtgtccc | cacgcactta | ggcctgtcgc | ctctcgtcct | gggggcacat | agcagctgct | 6420 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tgtctgga | ca | agatgttatt | ttacagtttt | ctttctcct | aagagtatat | 6480 |
| ttggcttttc | ccaagttgaa | gggaaaactg | tatttcagct | caactgttcc | ttctaatacc | 6540 |
| taccaaatat | taataggtag | tatggatgga | gcttgtcttc | cttgcattga | ttgtctcatt | 6600 |
| caattaacag | ctctgggtag | gtcctgttat | cctcatttta | cagatgagga | aactgaggca | 6660 |
| cagagaaatt | aaactactct | tccaaatctg | gtaaattttac | atgctgctct | aaatgccccg | 6720 |
| tttatggctc | taactaagaa | atgaccgtgt | ttttttgttt | ttgtttttgt | ttttgagaca | 6780 |
| aagctcgcct | ctgtcgccca | ggctggagt | cagtggctcg | atctcagctc | cctgcaacct | 6840 |
| ccgctccca | gggtcaagcg | attctcctcg | ctcagcctcc | cgagttagctg | ggattacagt | 6900 |
| tgtgagccac | cacacctgga | taagttttgt | atttttagta | gagacagggg | ttcaccatgt | 6960 |
| tggcaaagct | ggacttgaac | tcttggcctc | aagtggctcg | cctgcctcag | ccttccaaag | 7020 |
| tgctgggatt | acaggtgtga | tccactgccc | cggccagtaa | tgactttgtt | gactctacag | 7080 |
| cccatgttga | aatgttttat | cccttagtct | cccccaacct | tcacctatcc | accacactc | 7140 |
| cccaattctg | ctttgggtgtg | acgtcagttc | atctgggatc | ctaacactgg | gtgcctgctt | 7200 |
| cagggatcct | gggtgacctg | ttagggtgag | ggcccaactgg | gcaggaaggg | taggtgaatg | 7260 |
| caatgtgaaa | atagagggaa | tcagaggcca | cccagaggca | gagaccagga | agtgggagtc | 7320 |
| aacatcgct | cctgcctgtc | cccgtgtgct | ccgcatgcag | ccctctgcct | gtctttcaag | 7380 |
| gtcccaggct | atcccttggc | ttgttgggtg | tatccatggc | tgtgaactcc | ccacttctca | 7440 |
| gaggcctcag | gggtgtggctg | tgaggaccca | acctcttctc | cccactgacc | agctgggacc | 7500 |
| tttaacaagt | caccagccct | cccttccgca | atgatttgtc | ccctcccagg | gctggcatga | 7560 |
| ggatccaatg | ggatggaggg | tgagggaagca | ctttgtaaac | tggaaaccat | atcccaagga | 7620 |
| tgctagtctg | agggggcctca | ggagtacagt | gttaagtaga | tgagggtagt | tagcatcatg | 7680 |
| ctccacagat | gccaattggt | aaaattgctat | ttagacccaa | ttagggctgt | acagatgtga | 7740 |
| gctgtttgtg | ttagaggctg | caaagatctc | aggcatagta | ggtgacacat | cttttagtgc | 7800 |
| ctcaaagatg | gaacatggca | tagagatggt | agttacagta | ctccaagggg | ttggttatta | 7860 |
| ttagaacagg | gctgggctga | tatgtgtcat | tataatacta | tccagaggtg | tgctctgcag | 7920 |
| tctgcttata | caagcattat | actgacactc | acggttggtc | cagccctctt | tctgtcgagg | 7980 |
| tctgtatcgc | catagcttca | tgtacctgtg | agctgtccct | cacgattcta | gcctcctccc | 8040 |
| aacctggagc | caggatgggtg | ctaagggtggt | ggggcctgtg | tgttgcagaa | aaccgcctac | 8100 |
| gagacatcag | tgcagctgct | gggtggcccg | ctgcactgcc | cctctgatgc | tctggacctg | 8160 |
| tgggaggagc | agctggggag | ggaagcttga | ggcactcggg | agcccaagct | cagcctgaag | 8220 |
| aagtccact | cgagcccgtc | cctgcaccag | gatgaggtc | ccaccacggc | caaggtgaag | 8280 |
| gcgaacatct | cagagcgcag | aacctaccgg | aagatcatcc | ctaagcggaa | ccgcaatcag | 8340 |
| ctgtgaagcc | agcaccacct | cagagacact | gttccctgct | ccagggtaga | cctgagatga | 8400 |
| acctccctgg | aggagactta | tttcaatgag | tccaccatga | cggatgaggc | acctcctttc | 8460 |
| cctgctgaag | gacaaacctt | gtttccctgt | ggccctcatt | cttgtgctcc | ctgaagcttt | 8520 |
| cctaataattg | ctgtgtctcc | caccaccccc | atggcagctc | ctccgcagcc | ccagtccctg | 8580 |
| gccacgccca | agggaaagag | gaggttagga | cttgactttc | ctcccagagc | tcagcccatg | 8640 |
| taccctccca | ggccccagaa | tccagagtgg | cctcatttcc | tagacttgct | gagaactcag | 8700 |
| cacttgtttg | agaaccagt | cttatgtggt | gtgcccttgg | cttctggggg | agagcttggg | 8760 |
| gcagcagagg | cccctgggca | gcccagccag | gggagccaca | gccccaaagg | tggctcttgc | 8820 |
| ctgggaatta | ggtgaccttc | ctggggaggc | cccaggagag | tgaatcaggg | actcttgaga | 8880 |
| aattcctaac | cagcctcctg | tgaccagagg | agcagggtcg | ctaaggctct | gcccactgag | 8940 |
| gggacagcct | tctgggcagg | gacctcgggg | ggcttcaagg | gctctgcacg | gctgtggggc | 9000 |
| cctgtgcctt | tgtctctctg | tgtctccttt | ccccgaagt | agatgaaaca | gtctcacata | 9060 |
| cccaactgct | catcaacaga | gcagagctta | tggcatgagt | gagggctggg | cggggtaggg | 9120 |
| cctccagagc | tttgcaggga | accctggaac | cctaggaaca | aggagccttt | gttccaacag | 9180 |
| agcagagaag | gaggttctct | atgttcagac | cactggagag | gatagagagg | taaaaggtgg | 9240 |
| cgacagtttc | ccttaggggt | ctgcctggca | ggagccacag | ctcaggagag | ttgtgaggga | 9300 |
| tgggacggag | gctggcgacc | aggcgaggcc | taggacaggc | tcgggagact | tttctgtgct | 9360 |
| cctttctaca | catgccttaa | accttccctc | ctgtgggggtg | cctggacccc | ttccccatct | 9420 |
| ctggcagctc | agagggtctc | tgtctctctc | ccctgggaaa | tccctctcat | ctgccctctg | 9480 |
| gtgctctccc | agctgggctt | gttctctgag | ggaggttcgg | gagactcatg | gactttgggg | 9540 |
| tctgctgtga | ggaaggaggc | tggcgaggag | accagccacc | attgtctctg | ttcagccaag | 9600 |
| tgtgcaagta | ggctgcccgc | caagaggggg | cctctgtctac | ccgctgtctg | ctgcggctg | 9660 |
| acacactgcc | tccccagcct | tctgtctagg | ccacctctct | cccttcccat | gcttgtaacc | 9720 |
| agctctgggg | cttgcacctc | cacaaagtaa | ggttggccct | tggaggccat | gtttgggtct | 9780 |
| ccggccaggg | cctaggggcta | ggccatgcac | ccaatgggtg | cacaataaat | aacagggtcaa | 9840 |
| caaagaggga | ggtgtgt | | | | | |

[illegible]

| | | | | | | | |
|------------|------------|-------------|-------------|------------|-------------|--|------|
| <400> | 12073 | | | | | | |
| gctgaggagt | acctgtcctt | cttccagttt | ggaggccaga | gtctggaccg | agccctccgg | | 60 |
| taatgtcttt | gggccctctc | tggggaggct | gtggaggatg | gcatggggca | gtggcaccag | | 120 |
| cctgaggctg | gattctgatt | ggccctaagc | tcccgggctc | tctccttgac | cctggccctc | | 180 |
| ctttgcagga | gcttctctca | ggccttggtg | ctcagtgggg | agactcagga | acgggagcga | | 240 |
| atcctctacc | agttctccag | acgcttccac | cattgcaatc | cggggatctt | cccctcagta | | 300 |
| ggtagggagg | ggctggccct | gacagcaaag | cagggaaact | ttggggtgcc | catgtctgct | | 360 |
| tgggagttca | gtaggtgaca | gtgaactggt | gggagtgtgt | tgggggctgt | ggagaatgga | | 420 |
| agcattccag | gggttattcg | gttaccctac | gcagtgtggg | cagaggaaac | aggagccctg | | 480 |
| gttccaatga | gctttctctc | cacttaccta | tctctggggg | agattctgta | cacaccttga | | 540 |
| catgtgcaat | catgctgctt | aacacggacc | tgcattggaca | ggtaagacgg | tggagagagt | | 600 |
| ccctgtggga | actgaggctg | taacaagggg | tgcggggagg | agaagaccag | aggcctgaga | | 660 |
| ccgggcaggg | aacaccctcg | agggatgtgg | gcctggggag | ctggaaacgg | ttccattggtt | | 720 |
| gctggctggg | aggttattct | attgggatgg | ggtgtgtgct | cgagtcatcc | cacttctccg | | 780 |
| tggctacaga | acattgggaa | gagcatgagc | tgccaggaat | tcataaccaa | cctgaatggg | | 840 |
| ctgagggatg | gcgggaactt | ccccaaggag | ctgctgaagg | tatgtgccac | ggggtcttct | | 900 |
| tatgagcctc | atgtaggacc | tggagccttg | gttctttgtt | ccaagggaga | tgctgagctt | | 960 |
| gggactggct | ttgccaaaat | atccttgaga | gaacaggact | tgtttattga | agggctagta | | 1020 |
| aaagtgtatt | ccctggcggg | cagcatcaga | agcatcttgg | aatttgttat | ccatgcaaat | | 1080 |
| ctgcaggctc | cctgtgctgg | acttattgaa | tcagactctc | tgagactggg | acccttaaaa | | 1140 |
| tattttctta | agttttcaag | tcattctttac | cccttcaaag | tctgagaagg | gcaaagctac | | 1200 |
| acatggtgaa | agtctggagc | tcagacttgg | gagccttggtg | ttcctggggt | tgaattctag | | 1260 |
| tcttgggcaa | tttggccctc | cttggccaac | tcaagttctt | cctgagagta | ttaaccactt | | 1320 |
| accatgccat | tatcaagatg | aaatgaaatc | ttccaagtgc | tcagcacggt | gcttggcaca | | 1380 |
| tagcatgtgt | gtcataagca | attaaaatca | tttgctgttt | catcacagtc | acgcatacct | | 1440 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| taacgatgaa | ggtgtgttct | gagaaatgca | tcgttgggca | ttttcactat | tgtgtgaaca | 1500 |
| ttatagagt | aacctacaca | aacctagatg | tacagctcac | tgacacaccag | ggctatatgg | 1560 |
| gatagtctat | tgctcctggg | ctacaaacct | gtatggcatg | ctgctgtact | taataactgca | 1620 |
| agcaattcta | acacagtgc | gtatttggat | atctaaacat | agaaaaggta | caataaacac | 1680 |
| atgatagaaa | agattaaaaa | tgatacatct | gtataggaca | gctccatcac | aaccttacag | 1740 |
| gaccactatc | atgtatgcag | ttcatccttg | actgaaccat | catgatgctg | ttatatggta | 1800 |
| catggctgta | cttcatgaac | atttactgaa | cacctactat | gtgccagact | ttttgctagg | 1860 |
| caccgcaaga | gctatagaag | caagcgagat | aacatctacg | ttaatatgtc | aaacttttag | 1920 |
| tgcatacttc | attcattttac | tgcacattta | ttgtggggat | tggtcagcca | gtttcttctc | 1980 |
| catcagatcc | ctcccagtag | aatgccatgt | aggtaattca | tttctcctcc | atgagaacta | 2040 |
| gttaaggcct | cagtaagcat | gggcaggaca | gggacttgct | tgccctggct | atcatctttt | 2100 |
| tttttttttt | gagatggagt | ctcatcctgc | actgtcgcgg | gagtgcagtg | gtgtgatctt | 2160 |
| ggctcactgc | aacctccgcc | tcccggttcc | aagcaattct | cttgccctcag | cctcctgagt | 2220 |
| agctgggatt | acagggtgtgc | accaccacgc | ccagataatt | ttttgtattt | ttagttagaga | 2280 |
| cagggtttca | tcatgttggc | caaggctggt | ctcgaactcc | tgacttcaag | tgatccaccc | 2340 |
| gcctcggcct | cccaaagtgc | agggattaga | ggtgtgagcc | actgtgcctg | gcaggctcatc | 2400 |
| tttatgtctc | tagcaccacag | catagtgcct | gttgctggga | aatactccag | aaatactttg | 2460 |
| ttgcacggat | ggatggatgg | atggatggat | ggatggatgg | atggatggat | gcttgcttac | 2520 |
| tcaaggagga | agggcaccta | tgttgtgggt | ggaggaggca | ggctgtacac | atgcccctat | 2580 |
| cctacctctg | ccagacaaaag | agacttttagg | ctccacagcc | ctgaggctcc | cctgcccacc | 2640 |
| tggtgtcctc | tggtccaggg | cctctactgg | tctatccgca | gcgagaagct | cgagtggggc | 2700 |
| gtgtgagtga | gactcccttt | ccctctctcc | tctacccct | ctccctgtc | tttgactgt | 2760 |
| cctccctctg | tcacccaccc | gagagttaga | gaaactcaga | tagtgctccc | cttggagtga | 2820 |
| ggcaaagcca | gaggcagggc | tctggggaga | gagcatagag | gagcccaagt | aataccggag | 2880 |
| ggccagaggt | agtggggcgt | ggggtatggc | agaattttca | ggaattgatg | ggttcactgt | 2940 |
| gaaggaggac | tccttgtggg | gggtcctggg | gtgtggcttc | ccaggaaaag | agaggttgct | 3000 |
| aaggctctgg | gaggcaatgg | atacctccca | gttctctttg | catagtacgc | acttccagcc | 3060 |
| cgattctctg | atgttcaggg | atgaagaaga | cacagccaga | cctgagaagg | cccagccgtc | 3120 |
| cctgcagct | ggcaagatga | gcaagccctt | ccttcagctg | gctcaggatc | ccacagtgcc | 3180 |
| cacctacaag | cagggcatcc | tggctcggaa | aatgcatcaa | gatgcagacg | gcaagaagag | 3240 |
| tgagtgtctg | ctgcccacaa | acaggggtgg | gtgctgggag | cagccctgct | cagggacctg | 3300 |
| tgccgatgca | tgacacaggt | tgacagagaga | cagcccgcgt | tgaggacagg | cagccagccc | 3360 |
| atgttctctc | ctcagtgcgt | actgaacagt | gaccatgtgc | tggtatgctgt | gtgaggcact | 3420 |
| agagggtagg | taggagaacc | cagacaaaac | aggcctagtt | attcctgggc | cccagagtcc | 3480 |
| ctgtagtaag | gtagagatta | gacaagtgtg | tcaatgtctg | cgaaaaaaat | gtagcaagag | 3540 |
| ctgagtgtct | aggggctgaa | tcaagtggag | agaaaaagg | ttttggtttt | gttttggaag | 3600 |
| cgggatgtgg | ctacagggag | aggtaaggct | tctggttaagt | gatggatatct | gcgctgaact | 3660 |
| ttggaggaga | agagggctct | gaatttgga | gctgggcaga | gggcatcccc | cacagagaaa | 3720 |
| acagcaagcc | gagtttgctc | agaacctggg | gtgtgtgaaa | gggaggtaca | cttgaggcaa | 3780 |
| aattgccagg | gcctgcattt | gggccttatt | ccacaggcag | ctgaaggctt | ttgattatgg | 3840 |
| caccaacatg | tccagagtgg | tgatctcagc | agactaatgt | gcaagcacag | attgaatagg | 3900 |
| ctggggcgac | caggatggga | actagcattg | gctgtgaagc | cgccggggcc | ctagggctgc | 3960 |
| cttttgtcca | aggagcttag | aatggatctt | accacacaag | accaggggtg | agaggtaggg | 4020 |
| ggaaaagagg | gcagggtggt | ctcagagtgg | ggtacacagg | gaagggcacc | ccaaagctgg | 4080 |
| gctctgcgcc | cttgagcccc | tctagatggg | tatgcaagg | caagatcatc | ctgcagggac | 4140 |
| tagaaaagct | tctgggagga | gctgtgtttg | tgccctgggt | tttgccacta | cttggggtag | 4200 |
| tggtgtgtg | tttgaggtg | gagagaagat | gatatgtatg | aatatctata | tttggtatgt | 4260 |
| agtggttcta | tggttttgtt | tccagcgggc | attgcctgtg | tgtggagaga | ctctatatgt | 4320 |
| ttgtttacga | ttgtatgtgt | tttcttgtgt | tggtatgttc | tgcatattgt | tgcatcctgg | 4380 |
| tgagagactg | gaggtggtgt | gagggacagg | gggcatatgc | acacttgcgt | gtgtctgagt | 4440 |
| gtgtctggat | gctggtgccc | ccacctacaa | catttgtgtt | ctgttctctg | aacagcgcca | 4500 |
| tggggcaagc | gtggctggaa | gatgttccac | accttactgc | gagggatgg | tctctacttc | 4560 |
| ctgaaggtag | gaaaggagcc | aacacccttg | tcagaatggg | agactgagag | aggcccagaa | 4620 |
| cagtctggag | ggtgggcagc | tgatgataac | ctcttctctg | agccctgtg | actggttagca | 4680 |
| gggagaagac | cactgtctgg | agggggagag | cttgggtggg | cagatgggtg | atgagcccgt | 4740 |
| gggggtgcac | cactcgtgg | ccaccctcgc | cagcatttac | accaagaagc | cgcacgtctt | 4800 |
| ccagctgcgc | acggctgact | ggcgctctta | cctcttccag | gcaccgtaag | tccctggggg | 4860 |
| gggagacgtg | tggaagccct | tgccctgcct | agttctctct | cccctgacct | tgctgacacc | 4920 |
| tgaggcttgt | ggggcccagg | gggtccctgg | tggaatggc | cgtatgatca | gaaattctta | 4980 |
| gaaagcggca | gcaggaagag | gagctggggc | ccagggatga | agcccaggca | tcgcctactt | 5040 |
| cctccccatc | cttggccaac | tttgccagca | cagtatgcct | tttcttctgc | agtgggataa | 5100 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| agcctcccag | ttcagaacac | aggagtccg | ggacagttgc | taatgattga | ccatatctgg | 5160 |
| catttggtat | gaaatctgtc | accttctcag | attgtcctct | atagttttta | ttttttat | 5220 |
| ttgagacaga | gtctcgctct | gtcgtccttg | ctggagtgc | gtgactctca | cctcggctca | 5280 |
| ctgcaaccgc | cgccctcccg | gttcaagcga | ttctcatgcc | tgagcctccc | gagtagctgg | 5340 |
| gattaagagg | cgggccaccg | cgcttggtta | atttgtgtat | ttttagtaga | gacggggttt | 5400 |
| caccctgttg | accaggtgg | tctcgaactc | ctgacctcag | gtgatccgcc | tgccaaggcg | 5460 |
| ttgccaccgc | accgggcctc | caaattttcc | tctttattga | taagaaatgc | cacggtcaga | 5520 |
| ggtcgggtgc | ccggctagt | gcagggtgt | aactatggga | ggctgagttc | tgagcagctg | 5580 |
| gccagctgtg | caagcagcca | caggaggggg | cgaggaggag | gtgacaggac | ggactctgtt | 5640 |
| gtcccggggg | accaacgacc | tcctttgccc | cagcactgcc | aaggagatga | gctcctggat | 5700 |
| cgcgcgcac | aacttggtg | cggcccaacg | actccgcgcc | gcccctcccc | gccgctgtgg | 5760 |
| gctcccagcg | cagattcggt | cggcccatcc | tgcccgtggg | ccccgcccag | agctccctgg | 5820 |
| tacggcctcc | gggaaggggg | ggggtccggc | ggaactggga | atgtgcacct | ggagccccag | 5880 |
| gactaactcg | gggaggtgg | aggcgggtcg | cgcacttggc | ctgggaaccg | aggcggccag | 5940 |
| ggggggcgcg | cgcgtggccc | ggaaagcagc | ggtggggacg | ctcgagacag | cgcccctcac | 6000 |
| cgcccgtgct | tcgcagagga | gcagcatcga | tcccacgaga | actgcctgga | cgtgcgcgac | 6060 |
| gacgactgct | gaatctacag | aggaacctgc | cggaaggcg | gggcccgtgg | cgcgagctgg | 6120 |
| aggagcaccg | ctgcggaagg | agtacctgga | gtacgaggtg | agcggccgag | cccacctcac | 6180 |
| cgcgcgtgcg | cagcgcctc | tccgcccctc | cgtggccgcc | tcggtcccctg | cagccgtcac | 6240 |
| tgccctgacc | gcgcggggg | ggggagaggc | gcttgctgtc | gggcggggcc | cgcgtgcgcc | 6300 |
| gtctgcaaac | gggcggggg | tcccactgg | acacccgcgt | gcacgggcgt | gcacaaagag | 6360 |
| tgtgtgtccc | cacgcactta | ggcctgtcgc | ctctcgctcc | gggggcacat | agcagctgct | 6420 |
| tgtctgga | caccatagc | agatgttatt | ttacagtttt | cttttctcct | aagagtatat | 6480 |
| ttggcttttc | ccaagttgaa | gggaaaactg | tatttcagct | caactgttcc | ttctaatacc | 6540 |
| taccaaata | taataggtag | tatggatgga | gcttgctctc | cttgcatgga | ttgtctcatt | 6600 |
| caattaacag | ctctgggtag | gtcctgttat | cctcatattta | cagatgagga | aactgaggca | 6660 |
| cagagaaatt | aaactactct | tccaaatctg | gtaaatattac | atgctgctct | aaatgccccg | 6720 |
| tttatggtct | taactaagaa | atgaccgtgt | ttttttgttt | ttgtttttgt | ttttgagaca | 6780 |
| aagctctgct | ctgtcgccca | ggctggagtg | cagtggctcg | atctcagctc | cctgcaacct | 6840 |
| cgcctccc | ggttcaagcg | attctcactg | ctcagcctcc | cgagtagctg | ggattacagg | 6900 |
| tgtgagccac | cacacctgga | taagttttgc | atttttagta | gagacagggg | ttcaccatgt | 6960 |
| tggcaaagct | ggacttgaac | tcctggcctc | aagtggctctg | cctgcctcag | ccttccaaag | 7020 |
| tgctgggatt | acaggtgtga | tccactgccc | cgccagta | tgactttgtt | gactctacag | 7080 |
| cccatgttga | aatgttttat | cccttagtct | cccccaacc | tcacccatcc | acccacactc | 7140 |
| cccaattctg | ctttgggtgtg | acgtcagttc | atctgggatc | ctaactactg | gtgcctgctt | 7200 |
| cagggatcct | gggtgcctgc | ttaggggtgag | ggcccactgg | gcaggaaggg | taggtgaatg | 7260 |
| caatgtgaaa | atagagggaa | tcagaggcca | cccagaggca | gagaccagga | agtgggagtc | 7320 |
| aacatcgct | cctgcctgtc | cccgtgtgtg | ccgcattgcg | ccctctgcct | gtctttcaag | 7380 |
| gtcccaggct | atcccctggc | ttgttggttg | tatccatggc | tgtgaactcc | ccacttctca | 7440 |
| gaggcctcag | ggtgtggctg | tgaggaccca | acctcttctc | cccactgacc | agctgggacc | 7500 |
| tttaacaagt | caccagccct | cccttcgcga | atgatttgtc | ccctcccagg | gctggcatga | 7560 |
| ggatccaatg | ggatggaggg | tgagggaagca | ctttgtaaac | tggaaaccat | atcccaagga | 7620 |
| tgctagctgc | aggggcctca | ggagtacagt | gttaagtaga | tgagggtagt | tagcatcatg | 7680 |
| ctccacagat | gccaattggt | aaaatgctat | ttagacccaa | ttagggctgt | acagatgtga | 7740 |
| gctgtttgtg | tgtagggctg | caaagatctc | aggcatagt | ggtgacacat | cttttagtgc | 7800 |
| ctcaaagatg | gaacatggca | tagagatggt | agttacagca | ctccaagggg | ttgggtatta | 7860 |
| ttagaacagg | gctgggctga | tatgtgtcat | tataatacta | tccagagggtg | tgctctgcag | 7920 |
| tctgcttate | caagcattat | actgacactc | acggttgggtc | cagccctctt | tctgtcgagg | 7980 |
| tctgtatcgc | catagcttca | tgtacctgtg | agctgtccct | cacgattcta | gcctcctccc | 8040 |
| aacctggagc | caggatgggtg | ctaagggtgg | ggggcctgtg | tgttgagaaa | aaccgcgtac | 8100 |
| gagacctacg | tgacgtgct | ggtggccgcg | ctgactgcc | cctctgatgc | tctggacctg | 8160 |
| tgggaggagc | agctggggag | ggaagctgga | ggcactcggtg | agcccaagct | cagcctgaag | 8220 |
| aagtcctact | cgagcccgtc | cctgcaccag | gatgaggctc | ccaccacggc | caaggtgaag | 8280 |
| cgcaacatct | cagagcgcag | aacctaccgg | aagatcatcc | ctaagcggaa | ccgcaatcag | 8340 |
| ctgtgaagcc | agcaccacct | cagagacact | gttccctgtc | ccagggtaga | cctgagatga | 8400 |
| acctccctgg | aggagactta | tttcaatgag | tccaccatga | cggatgaggc | acctcctttc | 8460 |
| cctgctgaag | gacaaacctt | gtttccctgt | ggccctcatt | cttgtgctcc | ctgaagcttt | 8520 |
| cctaataattg | ctgtgctccc | caccaccccc | atggcagtc | ctccgcagcc | ccagtccttg | 8580 |
| gccacgcca | aggggaagagg | gaggtgagga | cttgactttc | ctccagagc | tcagcccatg | 8640 |
| tcaccctcca | ggcccagaa | tccagagtgg | cctcatttcc | tagacttgct | gagaactcag | 8700 |
| cacttggtttg | agaaccagtg | cttatgtggt | gtgcccttgg | cttctggggg | agagcttggg | 8760 |

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|-------|
| gcagcagagg | cccctgggca | gcccagccag | gggagccaca | gccccaaagga | tggctcttgct | 8820 |
| ctgggaatta | ggtgaccttc | ctggggaggg | cccaggagag | tgaatcaggg | actcttgaga | 8880 |
| aattcctaac | cagcctcctg | tgaccagggg | agcaggggtcg | ctaaggtcct | gcccactgag | 8940 |
| gggacagcct | tctggggcagg | gacctcgggg | ggcttcaagg | gctctgcacg | gctgtggggc | 9000 |
| cctgtgcctt | tgtctccttg | tgtctccttt | ccccgaagt | agatgaaaca | gtctcacata | 9060 |
| cccaactgct | catcaacaga | gcagagctga | tggcatgagt | gagggctggg | cgggggtggg | 9120 |
| cctccagagc | tttgcaggga | accctggaac | cctaggaaca | aggagccttt | gttccaacag | 9180 |
| agcagagaag | gaggttctct | atgttcagac | cactggagag | gatagagagg | taaaaggtgg | 9240 |
| cgacagtttc | ccttaggggt | ctgcctggca | ggagccacag | ctcaggagag | ttgtgaggga | 9300 |
| tgggacggag | gctggcgacc | aggcgaggcc | taggacaggc | tcgggagact | tttctgtgct | 9360 |
| cctttctaca | catgccttaa | accttccttc | ctgtgggggtg | cctggacccc | ttccccatct | 9420 |
| ctggcagctc | agaggggtctc | tgtctgtctc | ccctgggaaa | tccctcatc | ctgccctctg | 9480 |
| gctgcctccc | agctgggctt | gttctctgag | ggaggttccg | gagactcatg | gacttggggc | 9540 |
| tctgcctgta | ggaaggaggc | tgggcggagg | accagccacc | attgtctctg | ttcagccaag | 9600 |
| tgtgcaagta | ggctgcccgc | caagaggggg | cctctgtctac | ccgctgctgc | ctgccggctg | 9660 |
| acacactgcc | tccccagcct | tcctgctagg | ccaccctcct | cccttcccat | gcttgtaacc | 9720 |
| agctctgggg | cttgcacctc | cacaaagtaa | ggttggccct | tggaggccat | gtttgggtct | 9780 |
| cgggccaggg | cctagggcta | ggccatgcac | ccaatgggtg | cacaataaat | aacaggtcaa | 9840 |
| caaagagggg | ggtgtgtcag | tgtgtgagga | agggaggtca | ggcagctagg | accacctgca | 9900 |
| gtgtggcagg | cttcacccct | ctttgtctca | agtgtgtatg | tgtgtctgtg | catgtgtgta | 9960 |
| gtgtctgtgt | ctgtgtgttc | atgcatatgc | aggagtcaca | cggctcatagg | ccatcaaagc | 10020 |
| tggaggagac | ctcagaatca | ttcattcacc | tacttgctca | tttattcatt | cattcatttt | 10080 |
| gcagataata | tgggacgctt | tctatgtgcc | agtaccaggg | gattcacaaa | tgaattaaac | 10140 |
| atgtccctga | ctccatgagt | tgacaa | | | | 10166 |

<210> 12074

<211> 249

<212> DNA

<213> Homo sapiens

<400> 12074

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| atctcccctc | ctaacttttc | ccccataccc | tcaactgtatc | tgtctgcttac | tctcagtcac | 60 |
| ggtcctcatg | ctctccacac | ccttggtcct | tgggtcccac | tgcccttgcca | accagactcc | 120 |
| acaggtctct | cccagtgtct | cccagtgtac | actgaatagg | gtagcagggc | ataccagacc | 180 |
| ctggctgccc | ccttgctctg | tcaggaccca | aggcccagcg | tgccctgcacc | cttcccttgc | 240 |
| tcaccccca | | | | | | 249 |

<210> 12075

<211> 315

<212> DNA

<213> Homo sapiens

<400> 12075

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| gtttcctgct | ctcagtttac | agaggcactt | ttatcttgct | gggggaagtgt | gctgaaaaga | 60 |
| cacattccca | gcccacaccc | agggatgctg | attcagtcag | cctgggtcag | agggatagat | 120 |
| aaatatgttt | aaagctcctt | gggtaattct | gatgtgtaag | tagcagttag | ctgcagtaga | 180 |
| gtccaattgc | ctcatttgat | tgaagtggaa | tcccagcatc | aagtggacat | gacttttggc | 240 |
| ccaagactga | tgcttacaaa | ctaagtggag | taggttattt | gacctcactg | aacatgcac | 300 |
| cttttttttt | ttttt | | | | | 315 |

<210> 12076

<211> 12904

<212> DNA

<213> Homo sapiens

<400> 12076

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| aaaaggcgac | ggcggattga | cagaagtatg | attggagagc | ccacaaactt | tgtgcataca | 60 |
| gctcatgttg | gatcaggaga | cctgttcagt | ggaatgaatt | cagtaagtat | gttgggtggga | 120 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| catgcaggta | gggcattggg | gcatagtc | atgaaacctg | tgtgacaggc | acaagcattt | 180 |
| ttaatatgcat | tatgctaaat | gaatttgtgt | acagtgaatg | taaatacata | atatgagcat | 240 |
| agaagagaga | agcaaaactac | tgatgaaaaa | ttaatctctt | tgaatttcct | ggatttaggta | 300 |
| tttgtttctg | tttcttgtac | gcaactcttc | atagctgcct | ttgtcccga | taaatacttt | 360 |
| gaaacttgaa | aggatttgag | ttcagaatgg | aggttaatat | cctattgatt | ctcttgctcc | 420 |
| caccaaagag | acttgatgat | cagccttttt | aataataatc | tctttttgtt | cttttaagtt | 480 |
| cagttagttg | ccttttgcac | acatttttat | tgctttactt | tataaaccag | tggtctccaa | 540 |
| cctttttggc | accagggacc | agtttcgtgg | aagacagttt | ttccatgggg | gaaatggttt | 600 |
| tgggatgaaa | ctgttctacc | acagttcatc | aggcattaga | ttctcataag | gagtcacaaa | 660 |
| ccaaactcct | gcatgtgcag | ttcgcaatag | ggtttgtgct | cctatgagaa | tcccatgcca | 720 |
| tcactgatgt | gacaggaggc | agagctcagg | cggatgatgt | cacttgacgc | tgctcacctc | 780 |
| ctgttgtgca | gcccgggttc | taacaggcca | cttctggttt | tgggaccctt | gttataaact | 840 |
| attcatcttt | acctggtaat | attagaatgt | tggtgattta | tttactctaa | gttctcatgc | 900 |
| actaagcata | ggattagaat | tttcacatat | ccctttaggg | caaggcagta | aaaatttgtc | 960 |
| acatttgcca | gtaggatgtg | aagaaccaga | aataagattt | attcgctgtc | ttttaataga | 1020 |
| ggtttcagtg | agtttcagaa | taggcttttag | atctactcag | ctgacctttt | agtccttaat | 1080 |
| ttttgttgaa | gagaaaacca | gaatgcatta | taatagaagc | agcaccaa | gcgggttctt | 1140 |
| atcagagttg | ttcctcacat | ttgccttaaa | gcaggccact | gagtttcaac | agactgactc | 1200 |
| ttttcccat | gcctaaagta | aacaagtata | aatgatccct | aaagtgttca | aaaccagaaa | 1260 |
| ggattttata | aacataaaat | tatgatccac | tgtataccaa | cttactagac | agcattaaca | 1320 |
| aaagacttaa | cagggacttt | aaaaataggt | agatgggtat | cctggataca | gcaacgcagt | 1380 |
| ttgtcactgc | agttactagg | taagcaaagg | aatgacattt | gaaccttgcc | ggaaaggaaa | 1440 |
| cagcttgttt | gttttaaatc | cgtaggaaaa | gtactttgtt | tcacttgact | gctttgtgga | 1500 |
| aatgcaagag | gtatcatgtt | gctgtcaaaa | cagtcagtag | ttttgtttcc | tgcatcaaca | 1560 |
| tagagtgaaa | agactaaatg | aggccctatt | acttttatta | atatggttac | tataataaag | 1620 |
| agaatgggta | gtttcaaatt | tgttatatat | gatgaatttt | aatttctctc | tcatcaacag | 1680 |
| atgttgtctc | tgccacctca | gattttttaa | aaatccaact | ataaggccag | gcacggtggc | 1740 |
| tcacgcctgt | aatcccagta | ctttggggagg | ctgaggcagg | tggatcatct | gagctcagga | 1800 |
| tttcaagacc | agcctgagca | atgtagttaa | accctgtctc | taccaaata | acaaaaaat | 1860 |
| tagctgagtg | aagtaattgt | cacctgtggt | tccagctggt | tgggaggctg | agcggggagg | 1920 |
| actgcttgaa | cctgggaggg | gggaggttgc | agtgagctga | gatcatgcct | ctgaactcca | 1980 |
| gcctgggtga | cagagtgaaa | ccccatctta | aaaaaataaa | tccaaccgta | taggaggaat | 2040 |
| taaatttttag | ttcgtggcat | ttaaaatctt | atgtacattt | cgggaatttcc | tttaagattc | 2100 |
| ctccttgaat | gaaaaacctg | tcattggcct | actatttttt | tgcttctcat | agtttaggta | 2160 |
| gaacttttag | actgtacttt | gcagggcctg | cacacctgcc | tcttaatctt | agatgcagga | 2220 |
| ttgagatggg | acttttagctg | tggtagagtt | tctaccttgc | tgtctccagg | cagccttctc | 2280 |
| tgctactgaa | gtggactttt | tatgaagtat | ttcagccctt | tagagctaaa | tgtgcttccc | 2340 |
| aaatgtgttc | tatagttatt | tcgtatttga | gtttgtctatc | tctaaagcaa | tattcagcat | 2400 |
| ccatcccact | gtcacagagc | actgtgttct | tgctgtcagg | aatgggtgtg | ttcaattagt | 2460 |
| aacttttttt | tttgagacag | agtctcgctc | tgctcccagg | gctggagtgc | agtggtgcaa | 2520 |
| tctcagctca | ctgcaacgtc | tgccctcctag | gttcaagcaa | tcctgtctca | gcctcctgag | 2580 |
| taactgggat | tacaggctcc | tgccaccatg | cctgggcta | tttttgtatt | tttagtagag | 2640 |
| cggggtttca | ccatgttggc | gaggctgggc | tcaaactccg | gacctccggg | gatccacca | 2700 |
| cctcggcctc | ccaaagtgtt | gggattacag | ccatgagcca | ccacgcctgg | ctgagtaact | 2760 |
| tttcttgaaa | gtatcattga | tagtactgat | ttgatgagcc | tgactctgtg | agaaaaatta | 2820 |
| tgttctccta | tgcaatgcaa | taataaataa | gaagaaacca | taaatagaca | tgctgtttat | 2880 |
| tcaaataaaa | gaactgagca | gctagtatta | ggaatgtggc | ttgacgcata | tgaaacaggc | 2940 |
| ttgcctaaac | tatattattg | aatgggttaga | tgacttgttaa | tttctttttt | cttctaata | 3000 |
| tattattctt | ctacctttac | ttagtgtaaa | agactctttt | ctactaccct | ctttccagaa | 3060 |
| aagatttccg | ttaccctgtt | agtaatacaa | ccttgcgtaa | aaatattgta | tattcacagt | 3120 |
| cacaataata | cattgtctca | acactgaaag | attacttatt | aaagttactt | aataaagggt | 3180 |
| acttaagata | aaccaaatct | tttaaatgta | agaattgact | tttgagagaa | aatacttttt | 3240 |
| ttttcttaga | atctgcttgg | cattattgaa | tgacacatgt | aaaaacaaac | aaagattttg | 3300 |
| tgtttggttg | gttttgggct | tttttgatgc | agagtctcat | tctgttgccc | aggctggagt | 3360 |
| gcttactgca | gccttgaccg | cctaggtcgc | atcgatcatc | ctgcctcagc | ctccccagt | 3420 |
| agctgggact | acaggcctgc | accaccatgc | ccagctagtt | tttgattttt | ttttgtagag | 3480 |
| atgggggttc | gctatgtttt | ccaggctggt | ctcaaactcc | tgggctcaag | ttatctgcct | 3540 |
| acttcgaact | cccatagtgt | tgggattaca | gctgtgagcc | actgtacctg | gtcataaaga | 3600 |
| tgtttttttaa | gccaggccta | aaatatctat | aaaagctaac | atgccatgtt | aagtggaaaa | 3660 |
| ttacttggtg | tcagggttgt | gccacataac | ttaatgttag | ttaccataaa | ggggaagatg | 3720 |
| acgaatttga | actggtatca | tatgacaggc | cctagcctct | tcacactgca | ttactgagc | 3780 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| aagtttatgt | ttaaaaaaca | aacaaaacaaa | aatatagatt | tcttcttaca | ctcttacctg | 3840 |
| aaggtagtca | ttttattaat | ctgactatta | tagcaatacc | ttataatgtg | atgtcatacg | 3900 |
| aataagatgt | tccatgtaag | taaattttcca | ggtagtaaaa | aatgtcccca | tttaagagca | 3960 |
| aaacacattt | tctcattaag | actctcttga | tctaataaag | ctatgcattt | tctgttttgc | 4020 |
| cattatgttc | ttttacagta | tatattgaaa | cttgacttac | tcaaaaaatg | agttagacaa | 4080 |
| gtcttacttt | aaatatattg | actcagaatc | accagtgga | agcacctcac | ccttcacgcc | 4140 |
| ttatgttaca | gtaggtgctc | agtaagtatt | tgataagcag | gtgactgata | aatagatgat | 4200 |
| gccccgggtc | cttccaaatt | gtggaagtgt | gcagggccct | ttgagctgat | tccatgaaat | 4260 |
| aaatactcga | ccacattgct | agtgtctctc | ctccactagt | taggccatca | cctccaaaat | 4320 |
| catattgctt | gtgttccttc | ttctagcagt | ctagcctgac | tctccaattc | tctgcttcca | 4380 |
| gactgcttct | aattttatatg | aactaagact | ggaataataa | tgatatgcta | aaagtacttc | 4440 |
| acagtttgca | aatgacttta | tgtgcctttg | tttcagcaaa | aagaaaatat | cccaattttc | 4500 |
| atatactctg | cactctatca | ggaaacagcc | ctgcaatgtg | gtcgggagag | attaccatct | 4560 |
| taaccctttt | acagataaga | agcctgatac | tcagagagga | taaatagttt | accagtttac | 4620 |
| aatattaata | aataaaactgg | gactatatct | gtctttggat | tctttgattc | ttttttatca | 4680 |
| ggctatatata | acatggtaca | ttttttgaca | cagactttta | agattttatct | ttggttgggtc | 4740 |
| caatttttatt | catgcttatt | ttcttggttt | tgattcttta | ctaagtaatt | gaggtgatta | 4800 |
| tatatgtgag | atatctgtaa | attaagatac | ttgaggttga | gaaacaaagt | ggagttgatc | 4860 |
| ggccgggtgc | ggtggtcat | gcctgtaatc | gcagcacttt | gggaggccga | agcagtcgga | 4920 |
| tcacttgagg | tcaggagttc | aagaccagcc | tggccaacat | ggtgaaacct | aaaaatagaa | 4980 |
| aaattagctg | agtgtggtga | tgtgtgcctg | taatcccagc | tactagggag | gctgaggcag | 5040 |
| gagaatcatt | tgaacctggg | aggtggaggt | tgagatgagc | tgagatgacg | ccagtgcact | 5100 |
| ccagcctggg | caacagagcg | agactgtctt | aaaaaaaaag | aaagtggagt | tgatctatat | 5160 |
| atttttgacc | atttttcaaa | tgttaccaag | tgctttgtga | attacaaaac | tgacttttgt | 5220 |
| aatttggaaa | tagagaaaat | aggggttttt | gcaaaaaatg | tttcagttgc | tagcctccct | 5280 |
| gtttgtcctt | ataactagaa | aattgtttgt | ctataaaaaa | attttgtcta | taaaagtacc | 5340 |
| cttctgaaaa | aagcagccca | aataaaaattc | tgggaaaaaga | attacttagt | tgcaccggac | 5400 |
| ctacttcctg | acttccattt | tgttttgttg | tattttttgtc | ttgttttagg | ttagctccat | 5460 |
| tcagaaccga | atgcagtcca | agggaggtta | tggaggttga | atgcctgcca | atgtccagat | 5520 |
| gcagctcggtg | gatacgaagg | cgggatagcc | ctggctcctt | ctccagttag | tactcagagc | 5580 |
| tggggtctgg | acctgacggc | cagacatggc | caggccaata | atagtaaata | tatgtatata | 5640 |
| tatataattt | tttaatggtg | aacttatttg | gaaaggcaaa | attactcagc | taagtgtagt | 5700 |
| ttctgcactt | ggaatgtaag | ttttaggttc | ttttccttat | taagaacttt | aaatacttta | 5760 |
| aaacatctgg | ttggggagga | ttctgatgac | aagatgcttc | ttatgtgtcc | tttaacaag | 5820 |
| agtgaatca | ttattttgag | tattgaggcc | gagcatggtg | gctcacacct | gtaatcccag | 5880 |
| cactttggga | ggcctaggtg | ggctgatcac | ctgaggccag | gaattggaga | ctagcctggc | 5940 |
| caacatggtg | aaaccccatc | tctactaaaa | atacaaaaat | tagctgggca | tggtggcgca | 6000 |
| tgctgtaat | cgcagctact | caggaggtcg | aggcacgaga | attgcttgaa | cctgggaggc | 6060 |
| aggggttgca | gtcagctgag | aatgcgccac | tgcgctccag | cctgggtgac | agagcaagac | 6120 |
| cctgtctcaa | aaaagtactg | atactaaaga | tgactctctg | ggtagtaatt | ttacagttaa | 6180 |
| gacttcattg | tttataaaact | tttcaaatta | attaaaaaga | ctactttgaa | aaaggataaa | 6240 |
| ccctgaaaat | gtagaaataa | tttcaagttt | ttttttgttt | tatagggtta | ttgtgaattt | 6300 |
| ctatattttc | tctgtccact | attctgtaat | ttttttttgt | cctgtgattg | cttttatttt | 6360 |
| gaattacaaa | aaagaagtgt | gatggcacct | tgtccaccct | gtcgtgatta | ttccagttag | 6420 |
| atgttactgt | tctgtcttga | agaagatact | gtcagacgaa | tcctgcattt | ccttcagctg | 6480 |
| gcatgcatgc | ctttggactc | atggacagag | ttctttggat | tgactactgaa | ttttcaatgt | 6540 |
| ttaatcagta | tggatctgat | cttcgcatac | tcttttttgt | gaatgctaac | accattttgc | 6600 |
| agtttttttt | ttctatttta | aacatttttc | ttttcactgc | cgacccctg | ccttacgatt | 6660 |
| ttattggaaa | gcaaggacct | gctattattt | gttaattttgc | catcatttat | gtatattttg | 6720 |
| gaaggtatga | gaccacaag | cacaatgac | atttttatatt | gtttgtttgt | ttgaaacttc | 6780 |
| agcagaatag | atatctgcat | gctttatgaa | gttgtttgctt | cggtaagagc | ccatgggatg | 6840 |
| ccagaaatta | acattttctt | gctgccatgg | gctgatgatg | ctgctattag | ataaagttta | 6900 |
| gctgtggcac | caagtcacat | cattttcata | gaaaaagatt | acttgtagct | tatttttagaa | 6960 |
| gtatgacctt | ttggtctgtt | tgattgattg | attagaattg | caataaaaga | aaagcttgca | 7020 |
| ttcataaggc | attcattctg | ttgtaaatgt | tcaatatatt | tatttttgaga | gcaaggacct | 7080 |
| gtgggttgtaa | acagggtggg | ttacaggtgt | ggttatgtat | ctgagtgttg | cggtcatact | 7140 |
| ctcctccagt | ccaatcctga | gcactttcat | cttattaatt | agctgttcgt | ttctttgtgc | 7200 |
| actcattctt | ttattttttac | ttcttttttaa | tgttatggta | tccagttggt | tccagtagca | 7260 |
| gtttcttgaa | cttctggcct | gtactactaa | ctgcagacct | ccagagtcac | tggcctttct | 7320 |
| gtgctctaca | tattattttta | ggggccacat | cagttgccaa | gagcaacata | cataccgacc | 7380 |
| tggctgaatt | attgccagtg | aaaacaacct | gtacgaagcc | tttgctcagg | ttctaaaata | 7440 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| tgtttgtcct | tgcacgaatt | ttgtatatatt | caaatatttc | tgtaaagggt | tcttcttttc | 7500 |
| tgtttagagt | tggtgttaag | ccagagtcag | tggttttgt | tctcattaaa | atgtttgttt | 7560 |
| aaatcctatg | tccaattcaa | gcctatctaa | ctacatttgg | taggattaac | atctcatata | 7620 |
| acaaatgggg | cttaattaaa | aactttaact | tggaataaag | gaacagggat | cacttttatct | 7680 |
| tctgccttca | tttaccttag | tccaagattc | ttgcaaaaca | ggcaactgaa | caaacattag | 7740 |
| gtttatgtag | gtaaaatgtg | aaagcatttc | tcttccactt | tttaaaattt | aattttacca | 7800 |
| gtacagcggg | gcaccagatt | acttgatctt | tgtattttgc | agtttttgagc | cttttgtgtca | 7860 |
| atcccaagca | cagagaggat | ctgccaaagg | aaaacatttg | catcttcgga | gtagacattt | 7920 |
| tgcagtttgt | ttaataacaa | cttctaaagt | aagttgaatt | catccattgt | catgagttca | 7980 |
| ccaagtggat | gttgcattgt | ggaatttgcc | tgaagtactgt | tgtcattctg | ctcagccagg | 8040 |
| gcacggctag | tttcttggcc | agggacattg | ctatgtgctg | tgtgcaagct | ctttagaaga | 8100 |
| gagattggat | tttcttggca | ttatcagcac | tcagtctatt | tagtctactt | ctattttgac | 8160 |
| tgactcttta | aattagtaca | atttttctac | ttgtcatata | actcctggaa | caatagtacg | 8220 |
| ggaagccgtg | atccttttcc | ctgactcatg | attttagtct | ttttccaaat | cgctgttttt | 8280 |
| tttttttttt | tttttttttt | tgctgtctca | acgaccagca | tgtgttggag | cagatctcca | 8340 |
| tggtaaagcca | aaagtggact | tgtcacgcta | taactactct | gcagctgcca | ctaactctac | 8400 |
| aggcacagta | actacacttt | atacaggagc | acatgccaaa | gtgcctggga | ggtgccataa | 8460 |
| aaatcaagaa | ataagaaaac | tacaaaaaaa | gatacggtat | taaccttgga | cataattttt | 8520 |
| tttagggagg | cagctttccc | actttttata | agggggttgt | aaatctcaag | aggtcatttg | 8580 |
| ttccccatag | cagcatatct | cattttttaa | ttgaagcgaa | ttaaatagga | ttttactact | 8640 |
| caacattcat | tatactgtta | atctttgctg | aaatatatgc | taacaaatgt | taagcaaggg | 8700 |
| aaactgaaga | cttagtcatg | tggattgtta | gcagtgatct | gcattctgta | aaagaggtag | 8760 |
| tttcccatga | tgtaggcatg | aagtgggtgcc | agtaagcgta | gagcggaaat | gttgacttta | 8820 |
| gttaacattg | ggttttagcat | ttccagtgca | gcattatcag | tgggccttta | aaaatacttc | 8880 |
| gtaagtacat | tagctttcac | tttgttgtta | aattatagca | gactcattat | agagaacaag | 8940 |
| tttgccttga | ttttgtttaa | aatgacttct | gctaagcacc | cagaagataa | aattgacata | 9000 |
| tttttataat | ataagcatac | tttttttgta | cattgtgttc | attcttgaat | aaaattgagt | 9060 |
| ctgtgttggc | ttgtagatac | taaaaagaaa | gtattgattt | tgattcaata | aatgttttct | 9120 |
| ttcaatcctg | gttggccttt | cctttaaatt | ttgtttagtt | tttcttttct | ttcaaggaag | 9180 |
| gaattattta | ccagaattca | gttagagcac | cttttttgca | ttcttatatt | ttcagtcag | 9240 |
| attcctatca | tgcaaaaaac | aacttaaaac | tttttgattt | aaaagagaat | ttaaatttct | 9300 |
| atcattgtaa | tctttaactt | cacagttcac | ctcttaattt | aacaaatacc | tagtcagaat | 9360 |
| gaaaattaaa | tggatgaaa | taggactaat | aaaacattta | tgcttgggtg | agtgactcac | 9420 |
| aaactgaatc | ccagctcttt | tggagatgga | gggtgggtgga | tagtttgaga | ccagcttgga | 9480 |
| caacatgggt | aaaccctttc | tgtaaagttt | tattgcctat | caaccacatg | atttttaaca | 9540 |
| gaggtatcag | atatctacac | agctttccat | gatgaagcat | cttgtcctta | tagtatatgt | 9600 |
| aggacttaat | taaaatgaaa | ttaaattaag | aattctcttc | atacttagcc | acatttcagg | 9660 |
| tgcttagcag | tgtcatgtag | tgatcagctg | ctgtattagg | aagttataga | ctatttccac | 9720 |
| catcacagtt | tggggagtta | gtttgtagtt | tgctctaaa | atggtttatg | acactgggtc | 9780 |
| ccatagggag | tgattttgct | ccccatggag | acatttagagc | aatgtcagga | gacagttttg | 9840 |
| gtcatcacag | cttgaggagg | gggtgggtgca | ggctctgggg | agtggaaaag | agggatgctg | 9900 |
| gtaaataatg | tgtgatgtac | aggacagccc | ccaccacaaa | gattgatgtg | gtccaaaatg | 9960 |
| tccgtgccac | agctaaaaac | tgttttaaga | caagaagat | ctctacgtct | gcatactcac | 10020 |
| caggtgtaac | ctgttaggga | ctcttcgttg | cattagatca | tgtgcacagg | taagttaggt | 10080 |
| gttctgctgg | tcgaatactg | agaatagggtg | agttagggtt | tgttttatga | gaattgccac | 10140 |
| aaacattcta | aaaacagaaa | agacaaatat | taggaaagac | tatttcaaaa | cttctgggtta | 10200 |
| cttttgcctt | tatcccatat | caaagattc | taaaaagaaa | ttggcttaaa | atgaagttct | 10260 |
| ttgcaaaata | aaattctgac | aatcccaact | atgaaaaagt | atctgaagaa | actgatgttg | 10320 |
| gtagaccaag | agcaattaca | ttgtgagctt | atgtttttta | aggatatgca | taaaatgttg | 10380 |
| aaggaggggc | acataaccac | aaaaagaaat | atctataaaa | taatatagta | tcagagtcta | 10440 |
| gaaattgcta | atatttatga | agacgcaaac | atctacaaaa | ttgataaaga | cgaaggaaat | 10500 |
| tctgtgccct | cggcttaaaag | tacactatac | acaaacttta | aagaagtcat | tgaaacttta | 10560 |
| ccttctactt | gtctccatct | agaatgggtc | agtaagaatg | aaaccattaa | attactcatc | 10620 |
| ttcatctgac | tttttatgtt | gtagcacctt | aacttttggt | tttcatagt | tttctcagac | 10680 |
| tatgagggtt | tgcctttgat | accttgtccc | aggattcctt | gagccctgga | gttcaagggt | 10740 |
| acagttagct | tgacttacga | tgggtgcctc | gcacttcagc | ctgggtgaca | gagcaagacc | 10800 |
| ctgaatcttt | gaaaaaataa | aagtgttttt | caatgagctg | ctccatctat | gcaggaagga | 10860 |
| aaaaaaaac | tttattgtag | atatatgcaa | cctctaggct | cattttgacc | cctacctcat | 10920 |
| | | | | | | |

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|-------|
| tttcatctca | ttagaaggta | atctttgcag | aaaagtaaag | ccggtgcttc | attctaacc | 11160 |
| ccagattttc | tattttgtaa | atccaagcta | tggagttcat | tagagctttt | acaactcact | 11220 |
| agaactcatg | agttcagtag | cttttagacag | ttaaattgcag | ctgagaacct | gccttggggg | 11280 |
| cccagaaaga | attcctaggc | ttatgggaat | gttttttggt | ttgtttttct | cccttaaagg | 11340 |
| agcagcaagc | aagtaacaca | cttctttcaa | aatcttcaga | gcctcaccta | gttacctatt | 11400 |
| tcttaaccat | tgttttaagt | tatataaaca | tattcatcct | ttttatgtct | gtgtctttca | 11460 |
| aataaatatg | taagctggca | gagtcctttg | ccttagacac | cacgccttcc | cccagagcct | 11520 |
| ccgctgctgc | tgtgctctcc | cgcagggcct | catctgctgg | gcgctgcttc | cttagggagt | 11580 |
| atgtaaaaca | tttcagctgc | tgtttctggg | tttctgcaaa | aaactgtttt | tacttttcag | 11640 |
| aaatactgca | aaggaagtaa | aaaccactct | gcttctgtct | tttggcaaaa | ccaccagat | 11700 |
| tccaaatggg | gtaattttta | gttcaatctc | tttccaatgt | ccataatgtc | cattgtgtcc | 11760 |
| tattatcatt | tttcacaagt | gtatgtaggt | tttgctcacc | tgattttctc | tggataggta | 11820 |
| cagcgtaagt | gtaccttaata | agggactcga | ctgtccctct | ctaaatgcag | ccacatccaa | 11880 |
| tctgtgcaca | atgggaattaa | ggccacagac | catctaagcc | aatagcatag | aaggatctgt | 11940 |
| tactcctaaa | accagaaaca | gaaacaagca | gtcctttgtc | ccttcttccc | tcttttcaat | 12000 |
| ctgatattcc | tataggaaac | tagtatgac | agatagacat | tttagaaaag | tatcagctgg | 12060 |
| gcatggtgac | gcatgtctgt | agtcccagct | actttggagg | gtgaggcaga | tggatcactt | 12120 |
| gagcccagga | cttgggtcca | tcctgggcaa | catagcaaga | ccctatctct | tttaaaaaaa | 12180 |
| gaatctaagg | gttggacaca | gtgggttcacg | cctgtcatcc | caacactttg | ggaggccgag | 12240 |
| gtgggcaaat | cacaagggtca | ggagttcgag | accagcctgg | ccaacatggt | gaaaccccat | 12300 |
| ctctactaaa | aatacaaaaa | ttagccaggc | ttggtggtgc | acatctgtaa | tcccagggtac | 12360 |
| tcaggaggct | gaggcaggag | aatcgcttca | actcaggagg | cggagggtgc | agtgaagcaa | 12420 |
| gategtgcca | ctacactcca | gcctgggcca | cacagtgaca | ctccgtctca | acaacaacaa | 12480 |
| aagaatctag | gaaatattca | ttctactgtg | aaggacacag | tagagggtca | ggcagtccaa | 12540 |
| tctgtgatta | acgggagttt | tacaaaaagc | aaggaaaatg | ctcttcagag | gaaaaagatt | 12600 |
| ttaaaaaaaa | gtctcttgaa | atttcaaaaa | atttgttttt | acatttatac | tttctcactt | 12660 |
| cacagccctc | aaggacgttt | tgttctgaag | actctcatat | tcagctctgg | gaaataatta | 12720 |
| tttctctgat | tatcccttca | acttttgaag | attaccagat | ttctcaacag | caatactgtg | 12780 |
| gtctggaata | aaagggggca | cttccctcag | actttggaga | agacattatt | ttgaactaga | 12840 |
| attctgtcta | cagccatact | ctcaatgaag | taagatggca | gaataaagat | gattacacta | 12900 |
| gcaa | | | | | | 12904 |

<210> 12077
 <211> 789
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|-----|
| <400> 12077 | | | | | | |
| ctgcaatttc | aggagaagta | tactattgac | agtaaactgg | gataagcaga | gccccatagt | 60 |
| aggacactaa | cccaacgtgg | ccagtgggtct | ctcccaataa | cattatcata | tctaagggat | 120 |
| catggaaaac | aggacagatc | taagataatc | ttcatatctg | gaaaactctt | agataatcag | 180 |
| tgaaacacag | cagtacagtc | aggaaatatc | tctaaggggt | agatgagcat | attgggtcaga | 240 |
| acagggacac | cagctgggtg | ctaaagttac | tggaaaatgg | ggctcagcac | cccatgagaa | 300 |
| gtgcttttca | aaaattagga | agagtcagcc | aggcgtagtg | gtgctgtgct | gtaatcccag | 360 |
| ctacttggga | gctgaggtgc | gaggattgct | tgagcccagt | taaaagacca | gcctgggttaa | 420 |
| catagcaaga | ctccatctca | aaaaaaaaaa | aaaaaaaaaa | attaagaaga | gtgagtaaga | 480 |
| cccagcctag | ttagtcaaca | ggtttagttc | ccagctagaa | cagaccagag | aagagtgaat | 540 |
| ggactaggac | caaattctgtc | accctctcac | cctccacact | ccacccctc | cagctgaaat | 600 |
| gacagattca | tttttagcata | gaaaggtaat | tgggtataat | ctgaataata | accatcaaaa | 660 |
| tataatacat | ctgttaatga | tgaaagccag | aaagtaatgt | ttaaaatcag | acagtgtatt | 720 |
| caaaccactg | tgttctttgc | caacaataat | agtgactgag | ggtaatttta | catttgtctc | 780 |
| gttttttaa | | | | | | 789 |

<210> 12078
 <211> 1565
 <212> DNA
 <213> Homo sapiens

<400> 12078

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| gcaaagacca | agattttttgt | cgtgtagtca | ggctcatcat | gcctgcctcc | ttcttccctt | 60 |
| tggagaattc | tgagggaaat | tcctcaatct | ctcagaatca | aaatcttaag | tgtctaaact | 120 |
| tccaaatgac | tgcagctttt | ctcaagttaa | gaagccaaac | taaaataggt | taccatcctc | 180 |
| tttttttttt | aggaaagagt | ttatgagtgt | cacaagtgcc | tgggtgtggag | tttggattat | 240 |
| ttataggatt | attaaatgac | tctctgaggc | acaggtgaat | acataatttt | tttgagggag | 300 |
| tttgccctaat | gaacatttgt | gcggtaaata | ttaagtaagc | actgtttcat | gtgccaggga | 360 |
| taaaagatta | aagatagttc | ttccatctgg | ggaggagata | gcaaaacaca | tggacaatta | 420 |
| aaatatggcc | taattaaata | ctgtgataat | tataaatatc | aggtgctcag | aagttttag | 480 |
| gaaggccttt | gggggagaag | agcaaagggg | aggcaggtgc | tgttcaagtt | gttttagaaa | 540 |
| agggaaccct | gatgagttaa | ggatacagtt | ggccctccat | atctgtgagt | tttgcatttg | 600 |
| tggattcaac | caaccgagat | tggaaaataa | gttaggccca | tgatcgttgt | gcctgtgctg | 660 |
| aacaggtaac | gacatttttc | ttgctagtat | tccttaaaca | atacagtata | gcaactcttt | 720 |
| acatagcatt | tccactgtat | taggtattaa | taaataatct | agagtaatga | tttaaagcat | 780 |
| acaagggccca | ggtgtggtgg | ctcgtgcctg | taatcccaaa | acattggggg | ctgaagtggg | 840 |
| tcctcaaact | cctggctgct | tgagcccagg | agtttgagac | cagcctgggg | aacatggtga | 900 |
| aaccctatct | ctacaaaaaa | gtacaaaaat | cagcaggggtg | tgggtggtgca | tgccagctac | 960 |
| tcaggaggct | gagatgagag | gatcgcatga | gccagggagg | ttgaggctgc | agttagctgt | 1020 |
| gatcgtgccca | ctgcacttca | gcctgggcaa | cacagtgaga | cctgtctga | aaaaaaaaaga | 1080 |
| aaaagaaaaat | aaagcctacc | agaggatgtc | tgtagggttat | atgcaaatac | tacaccattt | 1140 |
| tatataaggg | actcaagtgt | ctatgggttt | tgatatccac | aaaggctctt | ggaatgaacc | 1200 |
| cagtggtatc | caaggaacaa | ctatatatga | aaatttaagt | gtagaaggga | aggtgtgttt | 1260 |
| cttgaaaggg | taacagcata | tgccaaggcc | acaggtatacg | tatggtatgt | acatgcaagt | 1320 |
| tgcctaggca | gctggaacac | tgggacaaga | atgaatggta | aagtagatga | agctggaggga | 1380 |
| attgtcagga | tccagatcat | gaggaattgt | gttctcctta | ttaaggaatt | tagatttggc | 1440 |
| ttccagaaaag | atcgcttttg | cagtatatgt | gaagagtggg | ttttaccgtg | ggcatgggtt | 1500 |
| gtcatgcctg | taatctcagc | actttgagag | gccgaggtgg | gcagatcact | tgaggccagg | 1560 |
| agttc | | | | | | 1565 |

<210> 12079
 <211> 1564
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|------|
| <400> 12079 | | | | | | |
| gcaaagacca | agattttttgt | cgtgtagtca | ggctcatcat | gcctgcctcc | ttcttccctt | 60 |
| tggagaattc | tgagggaaat | tcctcaatct | ctcagaatca | aatcttaagt | gtctaaactt | 120 |
| ccaaatgact | gcagcttttc | tcaagttaag | aagccaaact | aaaataggtt | accatcctct | 180 |
| tttttttttt | ggaaagagtt | tatgagtgtc | acaagtgcct | ggtgtggagt | ttggattatt | 240 |
| tataggatta | ttaaatagact | ctctgaggca | caggtgaata | cataattttt | ttgagggaga | 300 |
| ttgcctaatg | aacatttgtg | cggtaaata | taagtaagca | ctgtttcatg | tgccagggat | 360 |
| aaaagattaa | agatagttct | tccatctggg | gaggagatag | caaaacacat | ggacaattaa | 420 |
| aatatggcct | aattaaatac | tgtgataatt | ataaatatca | ggtgctcaga | agttttagag | 480 |
| aaggcctttg | gggggagaaga | gcaaagggta | ggcaggtgct | gttcaagttg | tttttagaaa | 540 |
| gggaaccctg | atgagttag | gatacagttg | gcctccata | tctgtgagtt | ttgcatttgt | 600 |
| ggattcaacc | aaccgagatt | ggaaaataag | ttaggccat | gatcgttgtg | cctgtgctga | 660 |
| acaggtagac | acatttttct | tgctagtatt | ccctaaacaa | tacagtatag | caactcttta | 720 |
| catagcattt | ccactgtatt | aggtattaat | aaataatcta | gagtaatgat | ttaaagcata | 780 |
| caagggccag | gtgtggtggc | tcgtgcctgt | aatcccaaaa | cattgggggc | tgaagtggat | 840 |
| cctcaaactc | ctggctgctt | gagcccagga | gtttgagacc | agcctgggca | acatggtgaa | 900 |
| accctatctc | tacaaaaaag | tacaaaaatc | agcaggggtg | ggtggtgcat | gccagctact | 960 |
| caggaggctg | agatgagagg | atcgcatgag | cccaggaggt | tgaggctgca | gtgagctgtg | 1020 |
| atcgtgccac | tgcacttcag | cctgggcaac | acagttagac | cctgtctgaa | aaaaaaaaaga | 1080 |
| aaagaaaata | aagcctacca | gaggatgtct | gtagggtata | tgcaaatact | acaccatttt | 1140 |
| atataagggg | ctcaagtgtc | tatgggtttt | gatatccaca | aaggctcttg | gaatgaacct | 1200 |
| agtggatacc | aaggaacaac | tatatataga | aatttaagt | tagaagggaa | ggtgtgtttc | 1260 |
| ttgaaagggg | aacagcatat | gccaaggcca | caggatacgt | atggtatgta | catgcaagtt | 1320 |
| gcctaggcag | ctggaacact | gggacaagaa | tgaatggtaa | agtagatgaa | gctggaggaa | 1380 |
| ttgtcaggat | ccagatcatg | aggaattgtg | ttctccttat | taaggaattt | agatttggct | 1440 |
| tccagaaaag | tcgctttggc | agtatatgtg | aagagtggat | tttaccgtgg | gcatgggttg | 1500 |
| tcatgcctgt | aatctcagca | ctttgagagg | ccgaggtggg | cagatcactt | gaggccagga | 1560 |

gttc

1564

<210> 12080

<211> 373

<212> DNA

<213> Homo sapiens

<400> 12080

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| tggttttaaa | gacaaggtct | tgctgtgttg | cccaggttgg | cctccagccc | ctgggctcaa | 60 |
| gcaattttcc | caagtagctg | ggagtacagg | tgtataccac | catgcccagc | tcattgtaag | 120 |
| tattctttct | ggcagccaag | aggactatga | agctaccttg | gttctttgca | ttttgccttt | 180 |
| gtattggact | tttaacctcc | tctcttgggg | ctttccttgc | tagtcatctg | attatctatc | 240 |
| ctttatatcc | tgacactaaa | atctcttctg | tttctgtgca | ttgcatagga | tgggaacagt | 300 |
| atggtaacgg | tgctactggc | ctttgaattt | tgcatttgga | caagcctact | tcaaactctgg | 360 |
| actccagttc | tga | | | | | 373 |

<210> 12081

<211> 2738

<212> DNA

<213> Homo sapiens

<400> 12081

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| cagtgggaag | ctgacggtgt | tactgtgtct | gtgtgagcag | taccagccat | ccctccggcg | 60 |
| ggaccccatg | tacaacgagg | tgagagcttg | gggctgggga | gggaggaggg | gacccacagg | 120 |
| tctgggtcca | ccccctctga | gcccgtctgc | tgtgccttgc | agtacctcga | ccgcatagga | 180 |
| cagctgttct | tcggcgtccc | gccaagcag | acgtcttcct | acgggggcct | gctcggtaag | 240 |
| ccggggcgcc | cttgtcacac | ccactccagc | cctgggtcgg | tgtggggtca | tcactctctgc | 300 |
| ccaggcaggt | ccagtgcggt | ccttcacgtg | gaagtggttt | tctgatcttt | taaatgtttc | 360 |
| tcagtttact | tttggttagta | ggaaattatt | agatttcaga | gttgagaatt | ctggcacggg | 420 |
| ggctcgcagc | ccggtctcca | ctccagagct | ccccatccct | gaggtgtctt | ccatttctctg | 480 |
| gcagggatca | catcacgtgg | ctggctgcgt | gctccccctg | ctctctgtgc | gccatgctag | 540 |
| gtggcctccg | tgagcctggg | gtgcccggga | cgctgccagc | cgctcgtgctg | gggcaggcag | 600 |
| tgctgccgtg | gctttggggg | cgcggcgggg | cgggtgtctc | actgtgggtg | gtggttcgtg | 660 |
| gcaccgcggg | agaggccctt | cactgagccg | cctgccttcc | cagcgtcacc | tgtctggggt | 720 |
| tatttttagtg | ggaggtgtga | ggtggtgacc | tctccccaca | gatgtctgcc | ctggtgcagc | 780 |
| tgcgtcctgt | ggcaggccct | gtcctccccg | gatgcccccc | ccagacaccc | tggccctcac | 840 |
| cgtgccccgt | gacacaggca | cctccacccc | aacaccctc | aggagcgccc | tgactcttct | 900 |
| gactctccag | tcgaaaccgc | agcctgagct | cccgttccac | agaagcgccg | tcaggcgtgt | 960 |
| cctgagatgg | ggtgacgtcg | tggataagag | agggtgacac | tgccacggcc | gtgtctttgt | 1020 |
| attcaaagaa | cacggtgtaa | cgtctcgttt | gggttcagga | gacttttgga | gctttggcct | 1080 |
| tgtacgtaca | gagtagttgt | tgattggata | aaaatcagat | gacagtgacc | gcagttggcc | 1140 |
| cctgtgggag | cagccgttga | agctttggca | catccagttg | attcatgtgt | cactgtaggg | 1200 |
| cgcagtgtgc | tctacagccc | cacttctctg | ctcaaaaatc | tctttccgtg | aggtggtgtt | 1260 |
| ggttctgtag | gtccctccgt | ggctcctgtt | ggtgggtgtg | gaggggtggt | ctgtagggcc | 1320 |
| ccgtggctgc | tccatggccc | cgttgggtga | cgtgggaggg | ccgttctgtg | gagtcccccg | 1380 |
| tggtgctcc | atgtttgagt | atctctgtgg | tcgtcggctc | cctggcctcc | agagtgtcct | 1440 |
| gtcccggggt | tcttgggtcg | tagacagtag | cgatgtgagg | cttttgcttg | ttccatggga | 1500 |
| cactgggaca | ccttgtgaga | cgtttgtggg | aaggaggggc | ttgggggcct | gtgggaggct | 1560 |
| gcccaggcgt | gactgccacg | gtgttcttct | ttccaggga | ccttctgacc | agcctcatgg | 1620 |
| gctcctcaga | gcaggaggat | ggggaggaga | gccccagcga | cggcagcccc | atcgagctgg | 1680 |
| actgaactgg | ccaggccacg | tggagacacc | acggtcgacg | acggctggag | ggacgtttca | 1740 |
| gaggcgagtc | ctgggtggct | cctcgccttg | ggggtcctctg | gccctgagge | tggcggtggc | 1800 |
| cgcatgccgg | cgctgtctctg | tttctgtgcg | gcggctcagg | gtggcgcggc | tgctgctcac | 1860 |
| tgtgctgctg | ggacccaaga | gtggggcgct | gcctgtctgg | cgccgcgtcc | cccagagattg | 1920 |
| accacaata | aagcacaggc | cttaccgcgg | cgtcacccctc | tcccactcct | ttgttctggg | 1980 |
| tcttttcggg | agggctgatg | ggcagcacag | gaggcccgtc | ctcgggggct | gcgcacatca | 2040 |
| cgctccttgc | cgggcgctccg | gcacagctgc | ggtcaccaaa | gcaggtgctg | gccctcggac | 2100 |
| ctgagagccc | agccagggcc | catgtggctc | gcaaatggga | gcggctgttt | ttgaacacgg | 2160 |
| ggtcattctg | cagtcaggac | gaaccgggtcc | ccgtcgcaga | cggagtgcac | gtgcctctgcg | 2220 |

| | | | | | | |
|------------|-------------|------------|-------------|-------------|------------|------|
| ccacatcctc | acgctcgggtg | gagggacgcg | tgcggcgggga | cggtgcctac | gggtacttgc | 2280 |
| agctgtgtcc | catgtggcat | cccagacctg | cgccctgctg | gtctctgtga | gcgccacgct | 2340 |
| gctgtgctgg | aaatgccgct | ttaaaaaggg | ataccgtggg | actctgcccg | tctctttcat | 2400 |
| aacgcaatat | ttatttgtat | tgggtgatga | ttgattcttt | cgacctaaaca | ttttggggtt | 2460 |
| taaccaataa | accggtccag | gagtgagcag | ctccgttctg | tcagatgcta | ctccaaatgt | 2520 |
| taccagaacg | atgacaaaag | gggagacgct | ctattttttc | acagttaaata | gacagttgta | 2580 |
| gattgatacg | cagttgtgca | tgggaagggg | aaacgcacag | ctttattttac | tgtaaagtgg | 2640 |
| aatttcagga | aggcttgtgt | gaaccgttgc | gcataaataa | accctttcta | ccgggctgtg | 2700 |
| caacgctggt | cctttcttgg | gcgctggtgt | gggggatc | | | 2738 |

<210> 12082
<211> 543
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12082 | | | | | | |
| tggaaccatg | ccagagccac | atttttattcc | aggatgcgac | acggggcggc | ggatgcctgg | 60 |
| cctcggaac | cccctccctg | cctatgaggg | cttgtccagg | gtccccctgg | aacacagctc | 120 |
| agccaggcaa | ggctgggaga | ggctggggcc | cccaggtgac | ctgcagacgc | ctccccacc | 180 |
| tacatgcccc | acgcaagggg | agccctggag | cccggcctgc | cttgacagga | aggagatagg | 240 |
| tgaataataa | atacacggct | gggcgcctg | cagcaagcgc | gacagtgcc | gggaccccca | 300 |
| gggccaactc | tgctcttgg | gcctcacgc | ggcccaggcc | ctcgtcccca | agggttcaga | 360 |
| caccactgtc | ggcgagcacc | gtgctgggcg | cagaggccac | gtgtggtggg | acggcagcct | 420 |
| gctggcccct | ccaggtgagg | accaggagca | caggctgtgg | caactccagc | ccgggcaggg | 480 |
| gccgggacct | gtgtggataa | tccacccaaa | cacccacgg | ccctcatagc | cccgtgacac | 540 |
| aca | | | | | | 543 |

<210> 12083
<211> 6584
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|------------|------|
| <400> 12083 | | | | | | |
| ttctcaacat | ctggcttagt | attgtgtgca | aaatcagaga | ggggtgcaag | atcctgattt | 60 |
| ctcagtaaac | ggaatagcgg | tgtgtgtggt | gcgggtcggg | acgaatgtgc | gatttcggtg | 120 |
| aggagggacc | tgtatcttaa | atcgtctggt | aaacatgttt | tcagactata | ttctcgctgg | 180 |
| ttcccgtttc | ctggctttgc | taattttagg | ctgtgatctg | ttttcaaggc | tgagccctac | 240 |
| aaatcaatgc | ctcttccaga | gattgctgct | cagaggatac | ttgttttaca | aataaatggt | 300 |
| tcctctcgct | ggttgtggaa | tttatataga | aactttgatt | cttccaggga | taaagtggg | 360 |
| tgagcggaca | gaattagctc | tgggggagct | ggtgggaaga | ggaacattgg | gatgtgtaag | 420 |
| gggcacagct | ccatatgtgg | ccccacaaag | actgcaccca | ggtcaggatt | ggaggctctg | 480 |
| cagtctgagg | tcttggtaca | gggttaactg | tctgctcgga | gctgcccggt | agggaaactg | 540 |
| tctcctcagg | gacagtccctg | ggtttactgg | gcattgagct | ccccttttagc | gggtaggagg | 600 |
| aggagatgc | cacctggtgt | gactctctac | agttcaggag | aagctggatg | ctgatgggtg | 660 |
| cttgttcctt | aggcagagag | aggagaattc | agccacctga | agtcagcacc | tacagaagca | 720 |
| cagtctcctg | gctttgcctc | tgaattatta | acagcagagc | agcattaaag | agccacaca | 780 |
| ctagaaggag | gatatgaaga | aacacccaga | gaatgtcaca | aaaaccaga | atgtcacagt | 840 |
| attgttttct | tcttgctggg | gtcctatcct | ctctcctaac | accagccacc | aaagctgatt | 900 |
| tttaaaaaat | gccatgattt | ctcttgttta | caagaagctg | tttcctatac | cctattcttg | 960 |
| aaggataaag | aaatagtcct | tcaaaagaaa | tatctggcct | ttcacagtgt | ttcatatttg | 1020 |
| ttggcttcct | atgaggtgac | tctgtcttta | acaactacca | ttttctgcct | gttttggtca | 1080 |
| aagtctgctc | caataagagt | tcttcaaata | tctttctcca | ttgcaaaatg | ttttaggta | 1140 |
| gcaatgaat | aaaacattta | aaattaatac | catgtttcta | taacactaca | tattaattaa | 1200 |
| taaaggaatg | gattgtcatt | ttcacagatc | agatgtgggc | tggacataat | gatcaatcaa | 1260 |
| aggcaagaag | cagggagatt | atccattttat | ttatttaaca | atgatcgata | accattcttt | 1320 |
| gccagtgatt | gtgcttgtcc | ccagggaata | atgagaaata | caagacatat | gtggtcttct | 1380 |
| catcacaag | cttgtagtat | aagaggagac | agtaaaaaaa | tcaagcaatt | aacttcctaa | 1440 |
| agtaatacat | attctgtaag | aagcctctgg | ggtgcagtgg | atcataacag | aggggtgttg | 1500 |
| tggtagacag | tggtgttggg | gaagactctc | tggagagccg | aggcctgcgg | gttgagcagg | 1560 |

| | | | | | | |
|------------|-------------|-------------|------------|-------------|-------------|------|
| aacaagctgg | gcactaggtt | ggaggggtgag | tgctccaaag | agaaggaatg | ataactgcaa | 1620 |
| aggccttgaa | ggtggaagga | gcctagattt | ccagaacatt | gagggtagt | tggctcacac | 1680 |
| ataggagaga | ggagagagct | gatcacacag | gcctatgggc | cattctgagg | acttcagtta | 1740 |
| ttttgaaacc | aatagtaagc | cactaggaaa | tttaaacaag | aaaaaatatc | aaattttagt | 1800 |
| tttaaaagaa | catctgattg | tagagtagaa | aagggattga | aggggagatg | atcaattaga | 1860 |
| agcctgttaa | gttgatataca | attgacagtg | ggttgattta | gcacaaagat | ggagagaaat | 1920 |
| gggtaatttc | gagttttttg | gaagtggaa | caataggatt | tgggtgatggg | ctgatgagag | 1980 |
| agagaggata | aaagagttgt | agatgacccc | aaagtctctg | aggagccacg | gggctagatg | 2040 |
| tatggtgcca | tctgctgagc | ggggagccag | gaaggcagac | aggatgtgga | ggtcagggct | 2100 |
| taatttcggc | caggttctgt | ttgagatgcc | catgaaatag | ccaaatggag | tgagatacaa | 2160 |
| aagtttgga | cttttataag | ctgagggaga | tataaaagtt | tggaaactctg | aggaggggtg | 2220 |
| aggctacaga | cctcatataa | acacatccaa | gccacgaatc | tctagataga | ggggggaagg | 2280 |
| ggccagaacc | cctgtgagga | agcactggaa | gcatttatgt | ttgtgtaaag | aaaaaggaac | 2340 |
| aatctgaaaa | tgaactgaa | aatggagggt | tgaggagact | tttgggaaat | ggagcaggag | 2400 |
| aatcaatgt | agcaagctca | tggcaaaaa | aaagttgttg | ttgactacag | gcagtcaggg | 2460 |
| attctagttg | cttccatttc | cctaaaatga | catggttatg | tttcttgatc | tacaggagtt | 2520 |
| caagcgacaa | tggcagccca | atacggcagt | atgagcttca | accccagcac | accaggggcc | 2580 |
| agttatggtg | agagggcatt | cagtgtcccc | cagaccaggc | tgcagggagg | ttagcaggtg | 2640 |
| gggggtgggg | atltgggggg | gaataggggt | ggggttctcc | tgcttgcca | cccagtcgcc | 2700 |
| atltgagcag | gagaaaaata | tttccaacct | cttttctcat | tttctcctca | tttgacctgc | 2760 |
| tcttctatct | ttcttgaccc | tctgcacttt | ctgcccattg | tgtggctaag | cagctaagca | 2820 |
| gaagagagat | taaatatcct | ctgattgacc | cagggctcgg | cacagtttct | tacctctgc | 2880 |
| ttctacaac | atggacacac | cagaacagct | ggttgtagcc | tatctgattg | tttttctgcc | 2940 |
| cctttcttca | gcctggagga | gaactgggaa | tgaggaatgt | gggagtaatt | gtccctcacc | 3000 |
| ctggtatcta | atltcccagc | tctgtgtgtg | ctcactataa | ccaacaaatt | aaactggctg | 3060 |
| gctcattcag | tgtatcacat | gacctcccat | tttcttctct | acccatagaa | attgactata | 3120 |
| tcagttgaga | ttttgctggt | ttaataaaact | atcccaaagt | ttcatagctt | aaaacatcag | 3180 |
| ccatttagtt | ggttcttaat | tctgtgggtt | cactgggctg | ttcttgggtc | tggaccagct | 3240 |
| tggctcatct | caggcactca | ctcatgcctc | tggggtaagc | tagtgcctgg | tatgcaactg | 3300 |
| aatgggtctg | gatagcctta | tggagatgtc | tggtagttag | caagctctca | gacagcaagg | 3360 |
| gtaatagaga | taactgggcc | ttgttgttat | catcaagaag | gctagtccag | gcttcctttt | 3420 |
| aaggcagttg | caggaggagc | agaaagaaaa | ggcaagccac | agtgcataag | cacttttgga | 3480 |
| gtctctgctt | gcaccaggct | ttctactgtc | ctactgtcca | gagcaagtca | taaggcccac | 3540 |
| ccagattcaa | cagttgaaga | gacagatagc | atcttgatgg | gaggaactgc | aaatctacat | 3600 |
| cccagaggca | tgcattccagg | gatgggaata | gattgtggct | acatttacia | tctcctccat | 3660 |
| ggattgtcac | catatgctct | caacactgac | taactgttgc | agtgttgagg | ctggcctttg | 3720 |
| gtgctttgtc | atlttgccctc | ccatgattct | cctacttctc | tccctatggc | caaaaaatgc | 3780 |
| cctcaggata | tctctaggac | agagccttct | gctgtgatgc | taactaaaaa | tgtgaacgcc | 3840 |
| agcccacgtt | ttctcttaga | taactcttagc | ctctgtgat | ccagtgttct | cagtcacatc | 3900 |
| actttcgga | atacgttctc | ttcatcccag | aattctgtgt | atcaaactgt | ggaaggtgta | 3960 |
| ttttaagaat | aatgataagt | tgcataaccc | acttccctgg | cttcttaaat | ggaagaagaa | 4020 |
| atgcttcatt | ttgaatataa | attgggaaaa | taaatctcca | ctacagatat | gctaaagtca | 4080 |
| aatcttgggt | tactccctgc | acgaccttat | ttagaaagaa | acagctggcc | gggtgcagtg | 4140 |
| gctcatgccc | gtaatcccag | cgctttggga | ggccgaggcg | ggtggatcat | ctgaggtcag | 4200 |
| cagtttgaga | ccggcctgat | caacatggcg | aaaccccgtc | tctactaaaa | atacaaaaat | 4260 |
| tatccgggca | tgggtgtgca | tgcctgtaat | ctcagctact | tgggaggctg | aggcaggaga | 4320 |
| atcgcttgaa | cccaggaggc | agaggttgta | gtgagccgag | atcatgccac | tgcacttcag | 4380 |
| cctgggcaac | aagagtgaia | ctccgtctca | aaaagaaaaa | ataaaggtag | aaacagctat | 4440 |
| tattggcagc | tcatagttct | cttctgaaac | catttttatt | cttctctctg | gctacatagc | 4500 |
| tacaaaaggt | cagactgaga | agctcaaagg | aatcctaaaa | agcaagattg | aagataggag | 4560 |
| attaagggaa | aggccagttg | cccaagtact | gaaaaatgag | catcaggcct | acaggaatct | 4620 |
| ctgagtgcag | cagtaacatc | aggagaagcc | cccacagcca | gtaacggagg | agggcactgg | 4680 |
| gggtgaggac | tctgcagggg | aatctattag | aggtagattc | taacagcatg | gctttttttt | 4740 |
| tttcttgatg | tcccagggcc | tggaaagcaag | agcccagaaa | ttcccaattg | agaatttgtg | 4800 |
| tagtgggtaa | aaccggagca | ggaaaaagtg | caacaggaaa | cagcatcctt | ggccggaaaag | 4860 |
| tgtttcattc | tggcactgca | gcaaaatcca | ttaccaagaa | gtgtgagaaa | cgcagcagct | 4920 |
| catggaagga | aacagaactt | gtcgtagtgt | acacaccagg | cattttctgac | acagaggtgc | 4980 |
| ccaatgctga | aacgtccaag | gagattatct | gctgcattct | tctgacctcc | ccagggcctc | 5040 |
| atgctctgct | tctggtgggt | ccactggggc | gttacactga | ggaagagcac | aaagccacag | 5100 |
| agaagatcct | gaaaatgttt | ggagagaggg | ctagaagttt | catgattctc | atattcaccc | 5160 |
| ggaaagatga | cttaggtgac | accaatttgc | atgactactt | aagggaagct | ccagaagaca | 5220 |

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|------|
| ttcaagactt | gatggacatt | ttcgggtgacc | gctactgtgc | gttaaacaac | aaggcaacag | 5280 |
| gcgctgagca | ggaggcccag | agggcacagt | tgctgggcct | gatccagcgc | gtggtgaggg | 5340 |
| agaacaagga | aggctgctac | actaatagga | tgtaccaaag | ggcggaggag | gagatccaga | 5400 |
| agcaaacaca | agcaatgcaa | gaactccaca | aggtggagct | ggagagagag | aaagcgcgga | 5460 |
| taagagagga | gtatgaagag | aaaatcagaa | agctggaaga | taaagtggag | caggaaaaga | 5520 |
| gaaagaagca | aatggagaag | aaactagcag | aacaggaggc | tcactatgct | gtaaggcagc | 5580 |
| aaagggcaag | aacggaagtg | gagagtaagg | atgggatact | tgaattaatc | atgacagcgt | 5640 |
| tacagattgc | ttccttttatt | ttgttacgtc | tgtttcgcgga | agattaaact | taatgaaaat | 5700 |
| ctgtttgtat | tttctgcata | ttctctggca | accttgcccc | atacttactt | atttagcata | 5760 |
| gtcagagtgc | ctagtttctg | tctctcaggc | actcgtaact | aaggaccacc | attggccatt | 5820 |
| ggtagatggt | tgattgactt | aacaagagag | ggacaaaatt | tcaatttgtg | aaactccaaa | 5880 |
| gcagaaagta | ttggtgcttg | ctaccttggt | aattcttctt | tagacatgca | gagaaaatgt | 5940 |
| atgcaagaga | ccaaaaagat | ggctccaagc | tatgtcatgt | tacctgtaat | aaaatctttt | 6000 |
| cttctagatt | ctttctatgt | tggcagataa | tctccccttg | tagcttccac | tcacttattc | 6060 |
| ttgcattcag | agtcacaatg | atcatcttac | ccatgtgggt | tttgagaaag | aaagatcaat | 6120 |
| tctttgtttg | cagtaggtaa | tcttagagat | ggagatgatt | gtagaattat | tcctagatga | 6180 |
| gtgtcaattt | atttaattcc | attgtcatat | aaggagtcaa | attgtttctt | atcatttgtt | 6240 |
| cattgaagaa | cagagacctg | tctggaaaat | cgatctctac | aaattcaatt | aaataatgat | 6300 |
| ccccaaatgc | tgaaaaagtg | aaatacagca | attcaacaga | taatagagca | atgttttagta | 6360 |
| tattcagctg | tatctgtaga | aactctttga | cgaacctcaa | tttaaccaat | ttgatgaata | 6420 |
| cccagttctc | ttctttttcta | gagaaagata | gttgcaacct | cacctccctc | actcaacact | 6480 |
| ttgaatactt | attgtttggc | aggtcatcca | cacacttctg | ccccactgc | attgaatttt | 6540 |
| ttgcttatgt | tgttttataat | aaaacttttc | aattatctca | tatt | | 6584 |

<210> 12084
 <211> 2735
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| <400> 12084 | | | | | | |
| tttccctttt | tttaaat | attattatta | tactttaagt | tttagggtag | atgtgcacaa | 60 |
| tgtgcagggt | tgttacatat | gtatgcatgt | gccatgctgg | tgtgctgcac | ccattaactt | 120 |
| gtcatttagc | attaggtata | tcgcctaagt | ctatccctca | ccccctcccc | cacccccacaa | 180 |
| caagccccgg | tgtgtgatgt | tccccaccct | gtgtccatgt | gttctcattg | ttcaattccc | 240 |
| acctatgagt | gagaatatgg | gggtgttgggt | tttttgtcct | tgcaatagtt | tgctgagaat | 300 |
| gatggtttcc | agtttcatcc | atgtccctac | aaaggacatg | aactcatcat | ttttatggct | 360 |
| gcatagtatt | ccatgggtga | tatgtgccac | attttcttaa | tccagtctat | cgttgtttgga | 420 |
| catttggggt | ggttccaagt | ctttgctatt | gtgaacagtg | ctgcaataaa | catacgtgtg | 480 |
| catgtgtctt | tatagcagca | tgatttataa | tcctttgggt | atatacctag | taatgggctg | 540 |
| gctgggtcaa | atagtatttc | tagttcaaga | tccctgagga | atcgccacat | tgacttccac | 600 |
| gatggttgaa | ctagttttaca | gtcccaccaa | cagtgtaaaa | gtgttctctat | ttctccacat | 660 |
| cctctccagc | acctgttgtt | tcctgacttt | ttaatgatcg | ccattctaac | tggtgtgaga | 720 |
| tggtatctca | ttgtgggttt | gatttgcatt | tctctgatgg | ccactgatga | tgagcatttt | 780 |
| ttcacgtgtt | ttttggctgc | ataaacgtct | tcctttgaga | attgtctgtt | catatccttt | 840 |
| gcccactttt | tgatgggttt | gtttttttct | tgtaaatttg | tttgagttca | ttgtagattt | 900 |
| tggatattag | ccctttgtca | gatgagtagg | ttgcaaagat | tttcccccat | tttgtagggt | 960 |
| gcctgctcac | tctgatggta | gtttcttttg | ctgtgcagaa | gttcttttagt | ttaattagat | 1020 |
| cccatattgta | aattttgact | tttgttgcca | ttgcttttgg | tatttttaaac | atgaagtcct | 1080 |
| tgaccatgac | tatgtcctga | atggtattgc | ctaagttttc | ttctagggtt | tttatgggtt | 1140 |
| taggtctaac | atgtaagtct | ttaatccatc | ttgaattaat | ttttgtatca | ggtgtaagga | 1200 |
| aaggatccag | tttcagcttt | ctatttatgg | ctagccagta | ttcccagcac | catttattaa | 1260 |
| atagggaaatc | atttccccat | tgcttgtttt | tgtcagggtt | gtcaaagatc | agatgggtgt | 1320 |
| agatatgcag | cattatttct | gagggctctg | ttctgttcca | tcgatctata | tctctgtttt | 1380 |
| ggtaccacta | ccatgctgtt | ttggttactg | tagccttgta | gtatagtttg | aagtcaggta | 1440 |
| acattatgcc | tccagctttg | ttctttttggc | tgaggatgta | cttgggtgatg | cagactcttt | 1500 |
| tttggttccg | tatgaagttt | aaagtagttt | tttccaattc | tgtgaagaaa | gtcattggta | 1560 |
| gcttgatggg | gatggcatta | aatctataaa | ttaccttggg | cagtatggcc | attttcacga | 1620 |
| tattgattct | tcctacccat | gagcatggaa | tgttcttcca | tatctttgtg | tcacttttta | 1680 |
| tttcattgag | cagtgatattg | tagttctcct | tcaagaggtc | cttcacatcc | cttctaagtc | 1740 |
| gtatttcctag | gtattttatt | ctctttgaag | caattgtgaa | tgggagttca | ctcatgattt | 1800 |

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|------|
| ggctctctgt | ctgttattgg | tgtataagaa | tgcttgtgat | ttttgctcat | tgattttgta | 1860 |
| tcctgagact | ttgctgaagt | tgccatcag | cttaaggaga | ttttgggctg | agacgatggg | 1920 |
| gttttccaga | tatacaatca | tgcatctgc | aaacaggga | aatttgactt | cctcttttcc | 1980 |
| taactgaata | ccctttat | ccgtctcctg | cctgattgcc | ctggccagaa | cttctaacac | 2040 |
| tatgttgaat | aggagtggg | agagaggga | tccctgcctt | gtgccagttt | tcaaaggga | 2100 |
| tgcttccagt | ttttgtccat | tcagtatgat | attggctgtg | ggtttgtcat | agatagctct | 2160 |
| tattactttg | agatacgtcc | catcaatatg | taattttattg | agagttttta | gcatgaaggt | 2220 |
| tggtgaattt | tgtcaaaggc | cttttctgca | tctattgaga | taatcatgtg | gtttttgtct | 2280 |
| ttggttctgt | ttatatgctg | gattatgttt | attgattttc | gtatgttgaa | ccagccttgc | 2340 |
| atcccaggga | tgaagcccac | ttgatcacgg | tggataagct | ttttgatgtg | ctgctggatt | 2400 |
| cggtttgcca | gtatttttatt | gaggattttt | gcttcaatgt | tcatcaagga | tattggtcta | 2460 |
| aaattccctt | ttttttgttg | tgtctctgcc | aggctttggg | atcaggatga | tgctggcctc | 2520 |
| aaaaaatgag | ttaggaggga | ttccctcttt | ttctattgat | tggaatagtt | tcagaaggaa | 2580 |
| tggtaccagc | tcctccttgt | acctatggta | gaattcggct | gtgaatccat | ctggctcctg | 2640 |
| aatttttttg | gttggtatgc | tattaattat | tgccatcaatt | tttcagagcc | tgttgttggt | 2700 |
| ctattgagaa | attcaacttc | ttcctgggtt | agtct | | | 2735 |

<210> 12085

<211> 2750

<212> DNA

<213> Homo sapiens

<400> 12085

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| tgaccttcaa | aattgcttcc | acttctaatt | ttgttttaag | acactattga | ctacacttct | 60 |
| cctaaaaatt | gatctttttg | acgtgattgg | gctcttgaga | cttttttacc | ctttgtcctg | 120 |
| atctgattct | ctccatgaat | caattttgtt | catctcatct | gtcactcttc | ctctgtatgc | 180 |
| tttgtaacct | gcatttcctc | tacttctggc | acttttttgc | caatggaacc | tgcaattcta | 240 |
| ctctgcaaat | agctagggtt | gtttcctccc | tcactcccag | ccaaaataca | gcttttatag | 300 |
| tagtatctct | gagtagggag | ttgggctatt | gagaaaaaca | tgctatagcc | caaagtcctt | 360 |
| attttaaaaag | agatagagat | tggaatgata | tgttcttttt | agggtgtgga | tgtttttaggc | 420 |
| tccaatgacc | ataatcaaaa | tagatctata | accaagccgt | aaaagggtaa | tatatgtgaa | 480 |
| ttttctcata | atatgaatcc | taacacaaaa | gcagttacaa | tactttaagc | gtaaattaca | 540 |
| tagtctgcac | catgattttt | tcaaaatttg | tcttacgaac | ctcaaggagg | aaaatgtacc | 600 |
| ccactgggta | ggaaagaatt | attttctcta | ggttccataa | catagaagga | gtgttttatt | 660 |
| tcctcactgc | cttgtgcctg | ggaatactga | aatgatagat | tcagccatgt | tttaataaaa | 720 |
| ttcctctgta | agaatattag | catggagaga | gattgggtata | aatacatgaa | tgtgcctgga | 780 |
| ttttgaagggt | aaatcctata | gctatcagat | tgctattcac | ttaattgcca | caatctaaaa | 840 |
| tttatctggt | agtgtttctt | ttctaattgt | tactagtgtg | ataaaaagaa | aaactcttat | 900 |
| ttatatatag | attattttgtt | tcaggacatt | aactgagaat | atagtattga | aatgacttga | 960 |
| aattgaagga | atcagatttt | ctactgctta | tttatttcaga | atataactta | cccaacaagg | 1020 |
| tctgatttaa | tttattttga | ggagtagtat | ttagaagcag | gattactctt | atttaggaaa | 1080 |
| agaatctgga | tcttagatat | acagtgactt | gccagagtc | acctagtaaa | tgaaagaact | 1140 |
| ataagtcacc | acttgggcgt | gtgattcatg | atcttgacta | tgaattgata | ccagtacttt | 1200 |
| acatgaaatg | gccatactct | gaaaattata | tttttagata | taaccttaat | aaatatactt | 1260 |
| gcctttcaca | gaatattaga | accaattcct | ccttatcttc | atggaggagc | atacttaatg | 1320 |
| atatatgtac | tgatgagatt | tcgtcttatt | tttaaaaaat | tccaagaaag | aatgtttcat | 1380 |
| agctcccttc | attcatctac | tctgggtgctt | aattagattt | gatacgagaa | cgctttcttt | 1440 |
| cttatctaac | ttgaatccct | catgctgtag | cttaagtctg | ttttctctca | ctctgcctag | 1500 |
| gatgccaaaa | gcagctaate | accattatcc | atagtaatat | tcacaaagtc | ctccttatgt | 1560 |
| ttgaaatggt | agcgctataa | ctgacagtaa | acataacccc | caagtatcag | caaattataa | 1620 |
| actagagaag | agggactagc | ttgtagtaaa | tatagatgac | atattagtat | ttagtgtgta | 1680 |
| tgaatgaata | acactaaata | acgtgactta | agcattaagc | agactaaatg | aaaggcatte | 1740 |
| ttctgttaac | tcattcactt | aaatatattat | taggcaccta | ctttgtgatg | ctatgctaca | 1800 |
| ttcaagactt | tcaatgaaaa | tgatttttaa | aaagtaaaac | ttattaagta | tatttctcag | 1860 |
| aaatgtgaat | gtacaatagc | ctaataatga | caagataaac | ctgtgcctta | tctaatacatc | 1920 |
| ctgtggaatt | tacccatatt | ttggagggtg | ggctgaaaaa | tagtctgatt | attagaacat | 1980 |
| ttgtgtttat | atttacagct | gccctattac | taaaatatgc | agttggcatc | aaaattttac | 2040 |
| catacacagt | cactgagccc | ttcacctgga | agcctcttta | tttcagcatt | actgctgaag | 2100 |
| agttacctgt | gtctttctgt | gtgcatttga | acatgtgtga | gcatgcagcc | agtgtagcac | 2160 |
| tacaagatgc | ttatcgctag | aaataaatta | tagagtcgtg | cagcatgaaa | atttatatgcc | 2220 |

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|------|
| cggaatgca | gaacacaggg | ttaccttctg | cctcctttct | ttgtcatgga | cagcagaggg | 2280 |
| agaaaggaga | aagagattta | ttctaaagcc | atttgaagct | gaccaagcaa | tttataacag | 2340 |
| atgaaatgct | gattttattgc | tgcagagaaa | ataatgggtg | ttcttgctaa | aatgccatta | 2400 |
| atagctttat | tgtttaaagt | gcaaattata | ttcagcaatt | tgtagtcct | cttttgaggc | 2460 |
| aaagttgaag | taattcaatg | taggctttta | gcagaaaaaa | ggacaaagta | attaacaaat | 2520 |
| cgtaaaagaa | ttcattcacc | aagattggct | gatagttgaa | ttctctgtct | gaactataaa | 2580 |
| gacataggga | aaatttgcac | ttaagaaata | caagatgact | caagtatttg | tttaaaactg | 2640 |
| aaaagccata | aggaagttgg | agttgggaca | ctacagattt | aggagtatgc | cttctgttgg | 2700 |
| tgtccactgt | gtctgcaaga | tgtggtagtc | aaccagagaa | aaactgaaaa | | 2750 |

<210> 12086
 <211> 1583
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12086 | | | | | | |
| ctgggcctcc | cgaagtaaaa | ctatttttaa | gtgtacagtt | cagtggcaat | aagtatatct | 60 |
| atgatgttgt | gcaactgtta | ccactattgg | aattccagaa | cattttcatc | accccaaaga | 120 |
| gaaacccac | aaccatcagg | aaccagtcct | cattctcccc | tttctcagc | ccctggcgat | 180 |
| ctctaaccct | ctttttgttt | gtttttccaa | tctggacatt | tcctgtaaat | gggatctaata | 240 |
| aatatgtggc | cttttggtgc | tgcttctttc | actaaggaaa | aatgatttgc | attttactct | 300 |
| tgcatgttct | gtgttggttg | tgtgggcgta | ttcatctagg | agaaatcttc | ctgaagttcc | 360 |
| ttctgtaact | aattctgcac | tgtccatgga | gtcatgttat | tgtagactg | gtggccttag | 420 |
| agacatgctg | ttttctgcaa | catcgtgaca | caaaagggtg | caccctgtaa | gaatcatttg | 480 |
| ggaatttttg | ttctcttttc | acaaacacta | catctcaa | ttttaatttg | atcaaatttg | 540 |
| actctcggtg | tctgcaattt | tcttttagaaa | ttaagcta | aaacattatg | acattgta | 600 |
| attgtgaacc | atgataaaat | cttaaatagt | gacaaatgaa | gcattgtgata | acacaatatt | 660 |
| ttctactttt | tacataatgc | agagatggca | aaattacaca | tttaaaataa | gtagatatata | 720 |
| ttttccatcc | attaaatggg | tctaatttgc | ttactgcttc | tgctgtatt | tacttccaaa | 780 |
| ccaggtatct | cgagactttt | cctgcggcta | ctttggaaca | gaagaagcca | tagtaacata | 840 |
| gaggtgaaaa | aggggtaaaa | ggtttcaggga | gcacctagga | tttcaggccc | agtgagaaat | 900 |
| cacttcaacc | aaattgcagc | aggggagctg | gtctcagggt | gggaggagag | aggggagact | 960 |
| tattttcatga | tcttttctct | attttccata | cagggaagag | atagtatttt | attatttttt | 1020 |
| atgtattatt | ttgtattttac | ttattttatt | attaaaatag | agacgggggt | ctcaatattt | 1080 |
| tgcttaagct | gatctaaaac | tcccagactc | aagccaccct | cctgccccag | cctcctgaat | 1140 |
| aggtgggatt | acagatgtgt | accaccactc | ctggcactgg | gaagatatatt | taatatgttt | 1200 |
| tagaccaatt | tagaaaatga | agctaaaaga | ggatcatctaa | gggaaatcgt | ttcctaacat | 1260 |
| tttgatcccc | catgcctatc | agcagagaa | gttttgagca | tgtagtctta | atgtgtgtac | 1320 |
| atttatttaa | acattctatg | atggaaaatt | cttaatttgt | atactattta | ctgttctact | 1380 |
| ttttaaaact | ttttaaaatc | aattttattg | aggtagatt | tacatacaat | aaaatgtacc | 1440 |
| cattttaaagt | gtatggaggc | cgggcgccat | ggctcatgct | gtaatcctag | cactttggga | 1500 |
| ggccaaggca | ggcggctcac | ttgaggtcag | gaatttcacc | agagatggtg | gaaccccatc | 1560 |
| tctactaaaa | aaacaaaaaa | aaa | | | | 1583 |

<210> 12087
 <211> 1583
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 12087 | | | | | | |
| ctgggcctcc | cgaagtaaaa | ctatttttaa | gtgtacagtt | cagtggcaat | aagtatatct | 60 |
| atgatgttgt | gcaactgtta | ccactattgg | aattccagaa | cattttcatc | accccaaaga | 120 |
| gaaacccac | aaccatcagg | aaccagtcct | cattctcccc | tttctcagc | ccctggcgat | 180 |
| ctctaaccct | ctttttgttt | gtttttccaa | tctggacatt | tcctgtaaat | gggatctaata | 240 |
| aatatgtggc | cttttggtgc | tgcttctttc | actaaggaaa | aatgatttgc | attttactct | 300 |
| tgcatgttct | gtgttggttg | tgtgggcgta | ttcatctagg | agaaatcttc | ctgaagttcc | 360 |
| ttctgtaact | aattctgcac | tgtccatgga | gtcatgttat | tgtagactg | gtggccttag | 420 |
| agacatgctg | ttttctgcaa | catcgtgaca | caaaagggtg | caccctgtaa | gaatcatttg | 480 |
| ggaatttttg | ttctcttttc | acaaacacta | catctcaa | ttttaatttg | atcaaatttg | 540 |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|------------|------|
| actctcgggtg | tctgcaat | tcttttagaaa | ttaagctaac | aaacattatg | acattgtaat | 600 |
| attgtgaacc | atgataaaat | cttaaatagt | gacaaatgaa | gcatgtgata | acacaatatt | 660 |
| ttctactttt | tacataatgc | agagatggca | aaattacaca | tttaaaataa | gtagatata | 720 |
| ttttccatcc | attaaatggg | tctaatttgc | ttactgcttc | tgctgtatt | tacttccaaa | 780 |
| ccaggtatct | gcgagctttt | cctgcggcta | ctttggaaca | gaagaagcca | tagtaacata | 840 |
| gaggtgaaaa | aggggtaaaa | ggtttcagga | gcacctagga | tttcaggccc | agtgagaaat | 900 |
| cacttcaacc | aaattgcagc | aggggagctg | gtctcagggt | gggaggagag | aggggagact | 960 |
| tatttcatga | tcttttctct | atttccata | cagggaagag | atagtatttt | attatttttt | 1020 |
| atgtattatt | ttgtatttac | ttatttattt | attaaaatag | agacgggggt | ctcaatattt | 1080 |
| tgcttaggct | gatctaaaac | tcccagactc | aagccaccct | cctgccccag | cctcctgaat | 1140 |
| agggtgggatt | acagatgtgt | accaccactc | ctggcactgg | gaagatattt | taatatgttt | 1200 |
| tagaccaatt | tagaaaatga | agctaaaaga | ggatcatctaa | gggaaatcgt | ttcctaacat | 1260 |
| tttgatccc | catgcctatc | agcagagaat | gttttgagca | tgtactccta | atgtgtgtac | 1320 |
| atttatttaa | acattctatg | atggaaaatt | cttaatttgt | atactattta | ctgttctact | 1380 |
| ttttaaaact | ttttaaaatc | aattttattg | aggtatgatt | tacatacaat | aaaatgtacc | 1440 |
| catttaaagt | gtatggaggc | cgggcgccat | ggctcatgct | gtaatcctag | cactttggga | 1500 |
| ggccaaggca | ggcggctcac | ttgaggtcag | gaatttcacc | agagatgggtg | gaaccccatc | 1560 |
| tctactaaaa | aaacaaaaaa | aaa | | | | 1583 |

<210> 12088
 <211> 147
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|------------|------------|-----|
| <400> 12088 | | | | | | |
| ggtcaggaga | tccagaccat | cctggctaac | acgggtgaaac | cccgtctcta | ctaaaaatac | 60 |
| aaaaaattag | ccgagcgtgg | tggcggggcac | ctgtaatccc | agctactcgg | gaggctgagg | 120 |
| caggagaatg | gcgtgaaccc | agggggg | | | | 147 |

<210> 12089
 <211> 184
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12089 | | | | | | |
| gctgcgatct | cggcactttg | ggaggccaag | gcaggcggct | gggaggtgga | ggttgtagct | 60 |
| agccgagatc | acaccactgc | actccagcct | gggcaagatt | gagcactgag | tgagcaagac | 120 |
| cccgtctgcc | atcccggcac | ctcggggaggc | cgaggctggc | ggatcactcg | cggttaggag | 180 |
| ctgg | | | | | | 184 |

<210> 12090
 <211> 1321
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|-----|
| <400> 12090 | | | | | | |
| aatttttgatt | tttttttttt | tttattgata | attcttgggt | gtttctcaca | gaggggggatt | 60 |
| tagcagggtc | ataggacaat | agtggaggga | aggtcagcag | ataaacaagt | gaacaaatgt | 120 |
| ctctgggttt | cctaggcaga | ggaccctgcg | gccttccgca | gtgtttgtgt | ccctgggtac | 180 |
| ttgagattag | ggagtgggtga | tgactcttaa | cgagtctgct | gccttcaagc | atctgtttaa | 240 |
| caaagcacat | cttgcaccgc | ccttaatcca | tttaaccctg | agtggacaca | gcacatgttt | 300 |
| cagagagcac | agggttgggg | gtaaggtcat | agatcaacag | catcccaagg | cagaagaatt | 360 |
| tttcttagta | cagaacaaaa | tgaagtctcc | cattgtctact | ttctacacag | acacagtaac | 420 |
| aatccgattt | ctctatcatt | tccccacctt | tccccctttt | ctattccaca | aaaccgccat | 480 |
| cgtcatcatg | gcccgttctc | aatgagctgt | tgggtacacc | tcccagacgg | ggtggtggcc | 540 |
| gggctgaggc | gtcctcaca | tcccagacgg | ggcggcaggg | cagaggcgct | ccccgcattc | 600 |
| cagacgatgg | gcggcctggc | agagacgctc | ctcacttctc | agacgggatg | gcggccggga | 660 |
| agaggcgctc | ctcacttccc | agactgggca | gccgagcaga | ggggctgctc | acatcccaga | 720 |

gagccgagat cgcaccactg tactccagcc tgggtgacaa gcgaaactcc atctcaaaaa 1500
 aaaaaaaaaa a 1511

<210> 12093
 <211> 33895
 <212> DNA
 <213> Homo sapiens

<400> 12093
 aatctttcat ttttacagat tgaaagtagt gttccctgcc aactgctaga gtcagtgtcta 60
 caagaactaa aggggtttgca ggaatttcta gacagaaact cccagtttgc aggaggacca 120
 ttaggaaatc caaagtaaga ataaataggg tttattaatt catctttttc ttttcgttgt 180
 attttttgtt gagatgattt acatactaca aagttgggtcc ttttaaagtg tgcagtttag 240
 ttttttttag tgtatctaca aggttatgca accatcacca ctatctaatt ttagaacatt 300
 ttcattcacag caataagaaa ctcttggtgcc catgaccagc cattattatt catggacctt 360
 cccccagtc ctggcaacca ctaactctact ttctgtctcc acagatctgc cttttctgac 420
 tttttatata aatattatat tttatatatt acataagata cacaatatat aaatatatta 480
 tatgaatata tgtaaatgga atgtttatag aaatatagtt atataaatgg aatattttata 540
 gaaatatagt tatataaatg gaatatagaa atattttatat gaattggaata tttatagaca 600
 tatttatata catggaatct ttatagaaat atttatataa atggaagtat gcaacagata 660
 acctttggtg tctgtttctt tccccaaagca tgttttcaag gtttgattgt ttagcatgtg 720
 attactactt gtctcatttc tcagttttatc agttgataga tatttgggtt gtttcagctt 780
 tttggctaatt aagaatgctg atatgagcat tcctgtacaa gtttttgtgt ggacatgtgt 840
 ttagacggac tcttgctctg tcacctgtgc tggagtacga aggcctcaac ttggctcaca 900
 gcaacctccg cctcccaggt tcaagcaatt ctctgcctc agcctcccaa gtagcttaga 960
 ttacagatgt gcaccaccat gccagctaa ttcttctttg tattttcagc ggagacgggg 1020
 tttcaccatg ttgaccaggc tgggtcttgaa ctctgacct catcatccac tggcctcagc 1080
 ctcccaaagt tctgggatta caggcgtgag ccacctgccc cgaccaagag tggacatttg 1140
 ggtttttttt ttgagacgga gtttctgctt tgtcgtcccag gctggagtgc aatgggtgca 1200
 tctcggtcca ctgcaacctc cacctctctag gttcaagcga tctcctgcc tcagcctcct 1260
 gagtagctgg ggttacaggc gcctgccacc atgcccagct aatttttcta tttgtagtag 1320
 aatggagtt tcaactatgtt ggccaggctg gtctcaaact cctgaccacc ttcaggtgat 1380
 ccaccatgcc cagcaataat ggattttttt tttttttttg agacagagtc tcgctctgtt 1440
 gccagcctg gagtgagtg gtgcggtctc agctcactgc aacctccgcc tcccgggttc 1500
 atgccattct cctgcctcag cctcccaggt agctgggact acaggcgctt gccaccacac 1560
 ccagctaatt ctttgtattt ttagtagaga ctgggtttca ccgtgttagc caggatgggtc 1620
 tcgatctctt gacctcgtga tccgcccgcc tgggctctcc aaagtgtga gattccaggc 1680
 gtgagccacc gcgcccagcc aagaatggat atttttaagc ctctaataa ataccggactt 1740
 tttgttgaat aataataatc acatggcatt gggggagtca catcactct tagaattgtt 1800
 aacgaggtat tacagtataa tcttttttaa gcatatgtag gccaggcaga gtggctcaca 1860
 cctataatcc caacactttg gaaagccaag gcaggaggat tgcttgaagc caggagtctg 1920
 agaccagcct gggcaatata ggagaccttg tcaactacaa aacacataaa taggccgggc 1980
 gtgatggctg atgcctgtaa taccagtagt ttgggaggct gaggcaggcg gatcacctga 2040
 ggtcgggatt tcaagaccag cctgaccaac atggaaaaac ccgtctctac taaaaatata 2100
 aaactagcca ggtgtggtgg cacatgcctg taatcccagc tactagctag gctgaggcag 2160
 cgaaatcact taaacctggg aggcggagggt tgcggtgagc ccagatcgtg ccattgcact 2220
 ccagcctggg caacaagagt gaaactctgt ctcaaaaaaa aatatcataa ataaataata 2280
 aagcatacat aaatatacac ttcttttaaa gcaaaaacag agtctaagta agtacacttt 2340
 tatataacat tattcatact ttgtgtgtgt gtgtgtatag atatatatat atattccctt 2400
 gccctgccc aggcagagtc ttgtctgtgt gccaggctg gagtgacagt gtgcaatctc 2460
 agctcactgc aacctctgct tcctgggctc aagcagttct tctgcctcag cctcccaggt 2520
 agctgggatt acatgcatgt gccaccaagc ctggctaatt tttgtatttt tagtagagat 2580
 ggggtttcac catgttgccc aggatgggtct cgatctcttg acttcgtgct ccgcccgcct 2640
 cagctccca aagtgtggg attacagggg tgagccaccg cgctggcct gtcttttatct 2700
 ttttagcagg agaatttacc tccttcccat tttattggaa ttagttaaatt gtgggtttatt 2760
 gttttgggtt ggtttttttg gagacagagt tctgctttgt cgcccaggct gcaatgcagt 2820
 ggtgcaatct cagctcactg caacctccaa ctccctggct caagcgattc tcctgcctca 2880
 cccttccaag tagctgagac tacagcccca caccaccatg cctggctaatt ttttctattt 2940
 gtagcagaga cagggttttg ccatgttggc aaggctgact ttgaactctt gacctcagat 3000
 aatccacctt cttcagcctc ccaaagtctt gggattacag gtagtgagcca ctgcatctgg 3060

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tctagttaaa | tgtttgattt | ttttctcccc | atcctgaatt | tgtgcttttt | gtttattttc | 3120 |
| ttccctttcc | catttcctta | ttgtattgga | ttgatcaggc | ctctctctac | cttaaacacc | 3180 |
| aattaagaag | ttctacatat | gatttttctt | cctctgttag | tcttaaattc | tgacagacat | 3240 |
| gcatctcagt | cagcattaat | aatttaacaa | actctattac | attttgtttc | cttgccttct | 3300 |
| actgccatcc | ctctccctcc | aaattatctg | gaattttact | tgtcagatgt | ttttagtttg | 3360 |
| tttggttttt | tttctaacat | tatggctctt | tgtaattga | attttaccat | tacatctgca | 3420 |
| attatatgta | aattttctaa | tctacttcta | atttctctta | attactcatt | tatctttaca | 3480 |
| gttttttagca | ggatgttttt | ttcattgatg | tttcttgaat | tgtcacagaa | gcagttctgt | 3540 |
| catctgcaaa | cagagatagt | ttcatctttt | ccatcttttc | ttgtctagct | ctacttgctt | 3600 |
| tctcctctct | gcacaaggta | atctctctct | ctctcttttt | ctttttaatt | gagacagagt | 3660 |
| ttcactctta | ttacctaggc | tggagtgcga | tggcatgata | ctcggctcac | cgcaacctcc | 3720 |
| gcctcccggg | ttcaagcgat | gctcctgcct | cagcctcctg | agtagctggg | attacaggca | 3780 |
| tgagccacca | cgcccagcta | attttgtatt | tttagtagag | acgggggttc | tccttgttgg | 3840 |
| tcaggctggg | ctcaatctcc | caacctcagg | ttatccacc | gcctcagcct | cccaaagtgc | 3900 |
| tgggattaca | ggcatgagcc | gctgcgccct | gccacttata | tctgtctgtc | ttttctcttt | 3960 |
| ttttttcttt | tttaggcaat | cttgctctgt | cattgaggct | ggagtgcagt | gatgtgatca | 4020 |
| ttattccctg | caatctcaga | ctcagccgcc | tgagttagct | gggctacagg | catgtgctgc | 4080 |
| cacacctggc | tgattttttc | ttatttttct | cagagatagg | gtctcactgt | gttgcccagg | 4140 |
| ctggtctaaa | actcttggcc | tcaagttatg | ctccctcctt | agcttcccaa | agtgtctggg | 4200 |
| ttacaggcat | gacctactgc | atccaccctt | acttgagggt | ttttttggtt | ttcttttttg | 4260 |
| agactgggtc | cactctgttg | cccaggccgg | agtgcagtgg | catgatcacg | gctcaccgca | 4320 |
| actttgacct | cccagcttca | cagctaccc | ccacctcagc | ctcctgagta | gttgggacta | 4380 |
| caggcacatg | ctaccatgct | cagctaattt | ttttatttca | cattttgtag | agacaagtct | 4440 |
| tactgttttt | gcccacgttg | atcttgcact | cctgggctta | ggtgatcctc | ctgtcttggc | 4500 |
| ctcaaaaaat | gctgggattt | taggcatgag | ccatccgcac | tcagccctta | ttgaatatgt | 4560 |
| ttaacatatt | catatattta | acatatgaa | tatgcttacc | atattcaata | agttagtttg | 4620 |
| tcaaattgat | ttactgcatt | ttacagagat | gatcatatca | ttttcccctt | tacctttaac | 4680 |
| aatagagtta | atacatgtcc | taatttcgac | caacccttgg | attcctataa | cattagtttc | 4740 |
| attgactatg | gaaatttttt | aaacagattt | ttgagatcta | ctttacatac | cactaaattt | 4800 |
| actcattttg | aatgttccagt | tcagtgactt | ttagtaaaat | catagaattg | tgcaaccatc | 4860 |
| accacagtcc | agtttttagca | cacttccatt | atctaggaga | catacctcat | gtccattagc | 4920 |
| agtcactttc | cattcccact | tcttagcccc | agacacttac | tgatctgtct | tatctctgta | 4980 |
| gatgtgccta | ttcttgacat | gtcatataaa | cagaatcata | ctgtgtgggtc | tttgagtctg | 5040 |
| gcttctttca | cttagtgtgt | tttgggggct | catgtttgag | atttatgtgg | taggatgtat | 5100 |
| tcatgctttg | ttcgttttta | ttgcccattg | aatgtggaat | tttaagatca | tagaccattt | 5160 |
| ctcagatctt | cgtatacatt | ttgcaccatt | ttcttcccaa | agtttaatgt | tgtagatgaa | 5220 |
| aaagtacatt | atctgtatga | ttctccttcc | tttgtaagtg | acttagtggt | tactttgaaa | 5280 |
| tttttttttg | tttttttctt | tttgttaccg | aaattcaaaa | gtccatgat | gtcttttaggt | 5340 |
| atatcttctt | tacagctctc | agtgagcctt | aagaatgaac | gtcttggctt | tgatcagttt | 5400 |
| tcttctctcg | ttttttatgt | atttgtatac | acattgaaata | tcccttatcc | gaactgtttg | 5460 |
| gaaccagaag | tgttttggct | ttcacgtttt | ttttgatttt | taaatatattg | cattatactt | 5520 |
| aggttgagca | ccccattccg | aaaatttgaa | atcgaaattg | ctccagtgcg | catttccctt | 5580 |
| gagcatcatg | ctgatgtgca | aaacgtttca | gatttgggga | catttcagat | gttagttttt | 5640 |
| ttttttatta | gggatactca | atctatgttt | cttctgtccc | attctctttg | gagaatcata | 5700 |
| ttaactcttt | tgtatctagc | ttgtttcttc | tcttccgtaa | tttcccttcc | tcccttctct | 5760 |
| cctttacccc | ctcttttttac | ttgatctttt | tttttctaca | ggtttaggaa | atttatagct | 5820 |
| gatgttctca | gtcatttaatt | tgatttaact | tcagtcattt | taagtagcat | ctgttttagtc | 5880 |
| tgtgtcataa | attttttctg | gccatcagcc | cttctgggtg | tgggtgcccc | accttatgaa | 5940 |
| ttattttaaaa | aaagtaaaca | tattaaatgt | ttgaattgta | ctgtatgtgt | tatatctcaa | 6000 |
| taaagctggt | ataaacacac | acattctgca | atttctgttt | cagtactact | gctaaagtgc | 6060 |
| agcagaggct | gataggattc | atgcgtcctg | aaaacggaaa | tccccagcaa | atgcaacagg | 6120 |
| aactgcagag | gaagtttcat | ggtaaattat | tgcttctcat | cagttaagcg | tacatgacct | 6180 |
| cagtaaaatt | ttattacttg | aatagaaaac | aatggacttt | cttagtaaga | tgtactttgt | 6240 |
| acacaaatat | ttgtaattaa | aatatcagtg | taattgggtc | cgggggtggg | gctcacacct | 6300 |
| gtaataccag | cactttggaa | ggctgagttg | ggaggatcac | ctcttccctg | gaggcagagg | 6360 |
| ttgcagttag | ctgagatcat | gccactgcac | tccagcctgg | gtgacagagt | gagaacctgc | 6420 |
| ctcaaaaaaa | aaaaaaaaaa | agtggtgattg | ggaaagttagg | ataatatgga | tattaatatg | 6480 |
| gatattgtat | atttccctat | ctcttttagc | atatacattt | ttgttccttc | ctccaccaga | 6540 |
| aaacatgata | cacacctatt | tcattatgtt | ttttttattg | tgggtgaaata | tatatataacc | 6600 |
| ataaaattta | ccattttttac | tttttatttg | tttatgtttc | tgagacagag | tttctactct | 6660 |
| gtttcccagg | ctggagtgc | atggcgatg | cttggctcac | tgcaacctct | gcctcctggg | 6720 |

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|-------|
| ttcaagaaat | tcttctgcct | cagcctcccg | agtagctggg | attagaggca | tgtgccacca | 6780 |
| cgccccgcta | atthttgtatt | ttcagaagag | acgggggttct | ttatgttggg | caggctggtc | 6840 |
| tcgaacttcc | aacctcaggt | gatcccgctc | gcctcgggct | cccaaagtgc | tgggattaca | 6900 |
| gatgtgagcc | accgtgcccc | gccccatttt | tacttttatt | tatttattta | tttatttttt | 6960 |
| tgagacagag | tctcactctg | tcgcccaggc | tggagtgcag | tggcatgata | tcggctcact | 7020 |
| gcaagctcca | cctccccggg | tcactccatt | ctcctgcctc | agccttctga | gtagctggga | 7080 |
| ctacaggcgc | ccgccaccac | acctggctaa | tttttttttt | ttgtattttt | agtagagaca | 7140 |
| gggtttcacc | gtgtttaagc | aggatgatct | caatctcctg | acctcatgat | ccgcccacct | 7200 |
| cagcctccca | gagtgtctgg | attacaggca | agagccactg | cgcttgcccc | gttttttact | 7260 |
| tttttaagt | tacagttcag | tggcattcag | tatatctatt | ttatgtaccc | attaccagca | 7320 |
| tctatctcca | gaacttttgt | catcttcccc | aaaaatgtca | ctctgggctg | ggcgagtggt | 7380 |
| ctctcacctg | taatcccagc | actttggggg | gccatggcag | gtggatcacc | tgaggtcagg | 7440 |
| agttcaagac | cagcctggcc | aacatgttga | aaccccatct | ctaccaaaaa | tacaaaaatt | 7500 |
| agccaggcgt | ggtggcgggc | acctgtaatc | ccagctgctc | gggaggccga | ggcaagagaa | 7560 |
| tcacttgaac | ccagcaggcg | gaggttgtag | tgagccgaat | ttgtgccatt | gcaccctagc | 7620 |
| ctgggcaaca | agagcaagac | tctgtcttaa | aaaaaataaa | caccaaaggt | cactctgtac | 7680 |
| ccatgaaata | ataaccccc | atthtttttcc | cctatcctag | gtccctggca | accaccattc | 7740 |
| tactttctgt | ctcttgaatt | ttacaactct | gggtacccta | ttaggatgaa | atcaaatttt | 7800 |
| acattttgtg | gcaggcttat | gtcacttagc | atactgtcct | cgaggttcat | ccatgtttgt | 7860 |
| acgtgtcaga | atthtcttcc | tttttaagac | tgagtaattt | ctattgtgta | tatgtgcata | 7920 |
| tgtgcacata | taccacattt | cctttatcca | ttcatctgtt | gatggacact | gagttacttc | 7980 |
| cgthtttttg | ctatcgtgaa | taatgtctgt | attaacatgg | gtgaacaaat | acaaatttaa | 8040 |
| gcctctgctt | tcagttcttt | tgggtatata | cccagaagtg | gaattgctat | atcatatggt | 8100 |
| aattctatta | ctaatttttt | tgatgaactg | ccatactgtt | tcatagcagc | tactgcattt | 8160 |
| tatgtttatg | tttatcttta | tttctttttg | agacggagtt | tcactcttgt | ctcccaggct | 8220 |
| ggagtgcatt | ggtgcgatct | cagctcactg | cagcctccac | ctcccagggt | caagcaattc | 8280 |
| tgcctcagcc | tcccagagtag | ctgtgggtac | aggcatgtgt | caccacaccc | agctaatttt | 8340 |
| tttattttta | gtatagttgg | ggtttcacca | tgttggccag | gctgggtctt | aactcctgac | 8400 |
| ctcaggtgat | ccacccactt | cggcctccca | aagtggtagg | attacaggcg | tgagccactg | 8460 |
| cgcttgcca | gccacagcat | tttatacttc | tagtagcaat | gcacaagggt | tccaatttct | 8520 |
| tcacatcttt | gccaacattt | gtctcattgg | gattttgatt | tgcatttccc | taatgattag | 8580 |
| taatatgcct | ttttatagag | ctaaaaatat | gaatcaaata | tttcattgtg | ctttttatca | 8640 |
| attataagta | gtaacaagta | aggaaagagc | aaggcaactg | aaaagtcttc | ataatcttca | 8700 |
| gttattccag | atacaagtta | gaacaataat | aagttattgc | atgaactttt | tgtgccattt | 8760 |
| aattttttct | aagttctttt | gccttccatt | gttaggggta | gagttacttt | ttctggccgt | 8820 |
| gatagaactt | tctgggtttg | ttgttttgag | atggagtctc | gctttttcgc | cgaggctgga | 8880 |
| gtgcattggc | acaatcttgg | cttactgcaa | cctctacctc | ccagggtcaa | gagattctcc | 8940 |
| tgcctcagcc | tctcaagtag | ctgggatcac | aggcgtgtgc | caccacaccc | atctagtttt | 9000 |
| tgtgttttca | gtagagatga | ggttttgcca | ctttggccag | gccggtcttg | aactcatgac | 9060 |
| ctcaggtgat | ccgcccactt | cggcctccca | aagtgtctgg | attacttgcg | tgagccacca | 9120 |
| cgcttgcca | gtagaacttt | ctcagttaac | actcaaccat | ttacttttgt | cccaagttac | 9180 |
| tttcttccct | actgaggacc | ctaggtttct | attcatcatt | ttgtaaattc | ttttttacta | 9240 |
| tcttttaaat | tttttgtctc | tcttttatth | ttttggagat | ggagtcttgc | tctgtcgcct | 9300 |
| aggctccgcc | tcctgggttc | acgccattct | cctgcctcag | cctcccaagt | agctgggact | 9360 |
| acaggcaccc | gccatcccc | ccaccagcta | atthttttat | tttttagtag | agaccgagtt | 9420 |
| ttaccgtgth | agccaggacg | gtctcgatct | cctgacctca | tgatccacct | gcctcggcct | 9480 |
| cccaaagtgc | tgggattaca | ggcgtgagcc | accgcgcccc | gccacacagc | aatattttca | 9540 |
| tggtttatgt | gtacctacac | aaacacagaa | gcatatatat | atacacacac | ggagaagata | 9600 |
| ataacataaa | tactactgat | tatcatggtt | gcctgtaatg | ggggctagga | agaaaacaac | 9660 |
| agggatttca | accttaacta | cagttttttat | ttgaaataaa | gcaacttaac | ctatgtttatt | 9720 |
| ttataataat | ttatthttgt | ttctcattag | aggctcaact | aagtgaagag | atthtcactt | 9780 |
| aggcaattca | gcagttgggt | cgaaaatcat | atcaggctct | ggcttttatg | aaacttcttt | 9840 |
| gtgaacatca | attcactatc | attgtggcag | aacttcagaa | ggtaattttt | tttatttttt | 9900 |
| tatgattata | ccattaatac | tatgttttga | ttttttggat | gagtattttg | gctttggagg | 9960 |
| ggattatttt | gggaagcatt | taagttatga | tgaagttagt | atgttatggg | aagatggcac | 10020 |
| aaaaaaagcg | taccaacttg | ggggacctat | tttttcaaag | ccgcaagttt | ttacttgggt | 10080 |
| gtatgtgaat | gaagtcatac | tttacaacac | atatttttta | aaacagtggg | ctttaccctt | 10140 |
| tatttgagct | acaggttctt | ctgagaatct | gataaaaagct | atctctcact | acccttaaag | 10200 |
| aatgcatat | cgacatggac | acacagactt | ttgcttataa | tttcaaaggg | cccaacaacc | 10260 |
| taaattaaat | actcttgact | gggcaccatg | cctcacgcct | gtgatcccaa | cactttggta | 10320 |
| ggctgaggca | ggaggatcac | ttgagcctag | gaattcaaga | ctatcctggg | caagatgtca | 10380 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ggacccatct | ctactaaaaa | taaaaaataa | attagtcaag | tgtgggtggca | catgcctgta | 10440 |
| gtcccagcta | cttgggaggc | tgaagtggga | ggagcacttg | agcctgggag | gttgaggcgc | 10500 |
| cacttagcca | tgatggtgcc | actgcacccc | agcctgggtg | acagagttag | accctgtctc | 10560 |
| tctctgtctc | tctcacacac | acacacacac | acacacacac | acatatacac | cactcctact | 10620 |
| tcatttttatg | ttttcttttt | ttttttttta | agagatggag | tctcactctg | tcgcccaggc | 10680 |
| tgcagttgtg | caatctcggc | tcgctgcaac | ctccacctcc | cgggtttctag | caattctcct | 10740 |
| gcctcagcct | cctgagtagc | tgggattaca | ggtgcatgcc | accacgcccc | gctaattttt | 10800 |
| tgtattttag | tagagacggg | gtttcaccgt | gttgcccagg | gtgatctcga | actcctgagc | 10860 |
| tcaggtaatc | cacccgcctc | agccacccaa | aatgctagga | ttacagacgt | gaccacccat | 10920 |
| gccccgcaac | tgtcctact | ttaaaggaag | atattttatca | ctgtaggaaa | taaatggttc | 10980 |
| atatttcttt | tgatgttcac | atttgaatcc | tttctaagga | taaggataat | caacattaat | 11040 |
| ctaaatgtta | gatagaatat | atagaggaaa | tttattccta | ccttttattt | aattgtgagc | 11100 |
| atttctaaac | gtatacaaaa | gtagagcaaa | aactgtaact | cccatataca | tttgactcat | 11160 |
| tcagcatttt | caagatactg | tgtttctaaa | aaaaatagac | agttccttga | acaacaacaa | 11220 |
| tgtcatgata | agttaccagt | ttttcttgag | acagtgtctc | actctgtcac | ccaggctgga | 11280 |
| gtgcagtggc | atgatcacgg | ctcactgcac | ccttgacctc | tctggactcc | agtgattctc | 11340 |
| ctacttttagc | ctcccagagta | gctggtacta | taggcacgca | ccactacgcc | tagctaattt | 11400 |
| ttgtattttt | ttgtggagat | ggggtttcac | cgtatctcct | aggctggata | gttaccaata | 11460 |
| ttaactgtca | atatttgata | gcaaaatctg | tcttaaaaaat | gtcttttttac | agattggttc | 11520 |
| attcaaatca | ggatctaaac | agtttaaggg | gtttgtctcat | ggaatttggt | tttctctttc | 11580 |
| atctgtttca | gtctaaagca | gtctttcctt | ctttttcttt | tccttgctgt | tgccttgtag | 11640 |
| aaatccagtc | atccatccag | tagaatgtcc | agcattctaa | ggacattcta | aggctttttt | 11700 |
| ttttttaatc | ctctttgtag | cgagcttctt | cctctatctc | ctgcattttc | tataaaatga | 11760 |
| aagtttatta | tataggcttg | attcagttca | ggtccttttt | tgaggaagaa | tagaataact | 11820 |
| cataggtagt | ggtttattca | tcagactggt | agaagataca | aaaggtttcg | ttgtccttct | 11880 |
| tttagttata | ctaagataaa | ttgctggatt | caagtagtaa | gcctaatact | gccattgtgg | 11940 |
| aattctccat | cagatttttaa | tcattccattg | ataatcattg | ctggaattta | ttatttcatt | 12000 |
| taggattaca | aaagggtaat | atttatttat | ttgtttgttt | gtttttttatt | ttttttgaga | 12060 |
| cagtgctca | ttctgtcacc | caggctggag | tgctgtggag | caatctgaga | tcactgtaac | 12120 |
| ctccacctcc | cgggtacaag | cagttctcct | gcctcagctt | cccagtagc | tgggactaca | 12180 |
| ggcatgtgcc | acaacgcctg | gctgattttt | gtagtttttag | taagagaccg | ggtttcgcca | 12240 |
| tgttgggccag | gctggtgttg | aactcctgac | gtcagggtgat | ctacctgcct | tggcctccca | 12300 |
| aagtgtctggg | attacaggca | tgagccacca | tgcccggcca | aaaggataat | attttaaatc | 12360 |
| tgtgattcct | tcccagtta | ctagctgcaa | ttctgtaaaa | aaaaaaaaaa | aaattctttt | 12420 |
| tccttgctcct | gtatggatat | ttcattactc | tgaaacactt | actttttgac | tctcgtatac | 12480 |
| cattttttcaa | cgttggaagg | cagtctcctc | attctttcca | ctagtgtcca | atgaatagtg | 12540 |
| tggcttttgt | tgggtggttt | gtttctttta | aatacatact | gtttttttatt | tttaaaaaatt | 12600 |
| caagctaata | tattttaata | tgaaacttat | ctttttcata | ccaagtagaa | taataatttt | 12660 |
| gagttttata | gagtgataaa | tatatgttag | gtaggttttt | atcctgggta | tgtttttgtg | 12720 |
| atccatcttc | aaagctctct | tccttacatc | accaatggca | tgctcaatga | atgcaaatta | 12780 |
| aagatttggt | caagaatttt | aacacagttt | gggtatttcc | ttgaatttag | aaaaaagaga | 12840 |
| tagcagtcac | atcactaaca | gaatctttta | ctatagtata | aatcaatact | ttagagcttc | 12900 |
| atttggacaa | gcagatttgt | tcacaataca | gattaaactc | caatattatt | ataaggccta | 12960 |
| gaataatgga | attctaacag | tgtttaggaa | ggagtaatat | gtaagcccaa | gattttcaaa | 13020 |
| tatagccaag | tgattgtttt | ttccatttta | taaccaaagc | caggagatct | gactctagtt | 13080 |
| ttggctctac | ttaagcttta | cttttctcat | ttggaaagtg | agagtttttg | actagatcta | 13140 |
| ctgtaggttc | ttttccaact | ctctatgatt | ttatgtaagt | tcgcaaaaat | ttgtttctac | 13200 |
| taattagtat | attttcgctt | ttcaattata | gagtcattta | atatttaggt | tatttttaatt | 13260 |
| tattaaaaata | attttcattat | gttttagaaat | atgggtatttc | tataattgtg | atagaaaagt | 13320 |
| tttatgctcc | taggaacttc | aagagcagct | gaagatcacc | acctttaaag | atcttgtaat | 13380 |
| cagggacaaa | gaactcacag | gggcattaat | tgctctctct | atcaactgct | acatcagaga | 13440 |
| taatgccgct | gttgatggca | ttagtttaca | tttacaggat | atctgcccac | ttctatatag | 13500 |
| cactgatgat | gcaatttgtt | ctaagggtatg | atactttatt | acctatttca | ttgtttggtta | 13560 |
| taagagggat | catgtatgat | gaaccatctt | gtttcactta | atataggacc | tcagtcagtt | 13620 |
| agatctctta | acctctccta | gcctcagaat | cctcatctaa | gaaaggggtt | ggaatatgtg | 13680 |
| gcttcttaaa | accagtgtat | actcttttaa | gcttagcttt | tcttttttaa | aatattttta | 13740 |
| tttattttatt | tgacacaggg | tttactctctg | ttgcttaggc | tgtagtgcag | tgctgtgatac | 13800 |
| atagctcaca | gcagcttcta | agtccttagac | tcaagcaggc | ctctcatgta | gctaggggct | 13860 |
| acgggtgtgc | accactacac | ccagccaatt | tttttgtttt | ttatagagac | aagttctgat | 13920 |
| ttggtgcaca | ggctgggtctt | gaactcttg | cttcaagtga | tcctcctgcc | tcagcctccc | 13980 |
| atagtgtctg | gattataagt | gtgagccacc | atgccagcc | ctcctttaag | tttttcataa | 14040 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| agaatattct | ctcttttttt | ttaagactga | gtacgatctc | agctcactgc | aacctccacc | 14100 |
| tcccagggtc | aagtgattct | cctgcctcgg | cctcccaaat | agctgggatt | acagggtgtgc | 14160 |
| accatcacac | ctggctaatt | ttttatattt | ttggtagaga | caggatttca | ccatgttgtc | 14220 |
| taggctgggt | ttgaactcct | gacctccgcc | tgccctcagc | ttgcaaagtg | ttgggattat | 14280 |
| agacatgagc | ctctgcgctt | ggcccataaa | gaatctttga | tagtgtttct | aggccatatt | 14340 |
| aaaaaaccaa | aggtgagaaa | ttaagaaaaa | tcactaaatt | tagaaattaa | ggaaatttag | 14400 |
| gggataattt | atctccttag | cttaaggaaa | agtactaaaa | cttcaagtaa | atcttttagt | 14460 |
| gaattagagt | taatgggggc | atttttattg | atccttttct | acagggtggaa | aaaataaata | 14520 |
| aatcagtgtc | acatggactg | cctgctgccc | aataatgtat | tgactaggca | agagaattac | 14580 |
| cagacaaaag | ttctcttgct | taacatattt | gggagaggaa | ttaagaatag | ctaggaatct | 14640 |
| ttgggtcaaaa | actttttctg | ctaaaattaa | gaagtaagtt | tgtagagttg | ttttcatttt | 14700 |
| aatggtaata | accatatata | aatttagaca | tagactaaaa | cttagttgac | agcatcatct | 14760 |
| gtctgcttga | ttttatatat | ttttaagttc | ttgtttctct | ctcttctagg | caaataagct | 14820 |
| tctccagcgt | tcccagacaag | ttcaaaaata | gactgaaaaa | gaaagaatgt | taagggaatc | 14880 |
| attaaaggaa | tatcaaaaaa | ttagcaatca | agtggacctt | tccaatgttt | gtgctcagta | 14940 |
| tagacaagggt | gagaaataaa | atgtttcttg | tatctttttac | tcaactcaaa | agacaaaacaa | 15000 |
| tagtgatatga | atgaagcaag | ctaataatga | aaagccactt | tccagatgca | aatctttcttt | 15060 |
| cagcatcaga | ggccgagtg | aaggacgtag | gaatgtggta | tcattgtgtt | gcaatatattg | 15120 |
| atgactacac | tgacctgcag | aagctgtaat | gttcttttcta | ttttttgaaa | tgtacttttt | 15180 |
| tttttttttt | tttttttttg | agagtctctc | tctgtcagcc | aggctggagt | gcagtgccac | 15240 |
| gatctcagct | cactgcattc | tctgcctccc | aggttccagc | aattctcctg | cctcagcctc | 15300 |
| ccgggtagct | ggatttacag | gcgcacgcca | ccagccccag | ctaatttttt | atttttttat | 15360 |
| ttttttattt | tttttatttt | gagacagagt | cttgctctgt | cacccaggct | gaagtgcagt | 15420 |
| ggtgcatctt | cagctcactg | caagctctgc | ctcccagggt | cacgccattc | tgccctcagcc | 15480 |
| tcccagtag | ctgggactac | aggcgctgc | caccatgccc | ggctaatttt | tttgattttt | 15540 |
| tagtagagat | gggtttcacc | atgttagcca | ggatgggtct | aatctcctga | cctcatgatc | 15600 |
| cacccacctc | agcctcccaa | agcgctggga | ttacagggtg | gagccaccgc | gcccggccat | 15660 |
| tgcccagcta | atttttgtat | tttttagtaga | ggtgggggtt | taccatgtta | gccaggggtg | 15720 |
| tctcgatctc | ctgacctcag | gtgatccacc | catctcagcc | tctcaaagtg | ctaggattac | 15780 |
| agacatgagc | cactgcgccc | agccgaaatg | tataactttt | tagcattaga | gtttcagttc | 15840 |
| ttgtccagtt | caattactgt | atgttttaca | atgttttctg | gattacattt | atttttcaga | 15900 |
| tattttaaatt | tttttattga | gttttaagggt | ataatctgct | tacttttttaa | aaaattactt | 15960 |
| taaatcaaat | ctaacataat | gtaaaggcca | taactatttg | cacagggtatt | attttgaatc | 16020 |
| ccaagggtatt | tttttcccc | cagtagggaa | ctaaaacttt | cctttttgtt | atttgaaata | 16080 |
| ggatcttttt | ttccaatgaa | gaaatatata | tatatatata | tttttttttc | ctttttcttt | 16140 |
| ttttttttgt | gagacagagt | cttggtctgt | cacccaggct | ggagtgcaat | ggtgcaatct | 16200 |
| cagctcacta | caacctctgc | ctcgctagtt | caagtgatcc | tcctgcctca | gccttttgag | 16260 |
| tagctgggat | tacaggcgca | tgccaccagg | cccagctaatt | ttttgtattt | ttagtagagg | 16320 |
| tggggtttca | ccatgttggt | caggctgggt | tcgaacccct | gacctgtgtg | tctgccccct | 16380 |
| ctcagcctcc | caaagtgtcg | ggattacagg | cgtgagccac | cacacctggc | ccccaatgaa | 16440 |
| gaaatatatt | taacagttgc | cttttaggca | tattaagacc | ttttccttct | gaagacctat | 16500 |
| cagaaatatt | ttatgttagc | agggtgacta | ttgtacagta | gagacataac | cttgatcatt | 16560 |
| attttcatgt | gccagctaag | gaaaaatgta | tccaacttag | tagtaagtca | taggtcttca | 16620 |
| ttcttttctt | tcccatcagt | gagattttat | gaggggtgtg | tggaactttc | tcttacggct | 16680 |
| gcagagaaaa | aagatcctca | aggtcttggg | cttcatttct | ataaacatgg | agaaccagaa | 16740 |
| gaagacatag | ttggacttca | ggccttccaa | gaaagggtgca | ttccattacg | ttagcagatt | 16800 |
| gtcatcttta | tggtatagca | cttttctttg | cataatgttt | tttgtttttt | gttttatgtt | 16860 |
| tttttttttt | ttttgagaca | gagtcttgct | ctgtcacctg | ggctggagtg | cagtcgtgtg | 16920 |
| atcttggtct | actgcaatct | ctgcctccca | ggttcaagct | attctcgtgc | ctcagcctcc | 16980 |
| catgtagcta | ggattacagg | tgcacaccac | cacgcctggc | taatttttgt | attttttagta | 17040 |
| gagacagggt | ttcaccattt | tggccagggt | ggtcttgaat | tcctaacctc | aagtgatcca | 17100 |
| cccacctcag | tcttgcaaag | tgctaggatt | atagccatca | gccaccgtgt | ctggcctctt | 17160 |
| tgtgtaaagg | tcgaccaccc | aaagtgtctg | gattacaggc | atgagccacc | atgtccagta | 17220 |
| ggatttcatt | ttaaaggata | attttttaagt | attcccaaat | ttgttgagac | tgttaaaaaag | 17280 |
| gaaatgtgtg | tccttaaaaag | aaatatagtc | caggcacagt | ggctcacgcc | tgtaatccca | 17340 |
| gcactttggg | aggctgaggt | gggcagatca | tgaggtcagg | agttcgagac | cagcctggcc | 17400 |
| atcatagtga | aacctgtctt | ctactaaaat | acaaaaatta | gccaggcgtg | gtgggtgcaca | 17460 |
| cccgtaatcc | cagcaacttg | ggaggctgag | gcaggagaat | tgctttaacc | cgggaggcag | 17520 |
| aggctgcagt | gagctgagat | tgaccacacg | aactccagcc | tgggcgtcag | agcagggtct | 17580 |
| cgtctcgga | caaagaagaa | atatataacc | tttctataac | atatatatat | ggagggtgtt | 17640 |
| ttgttttgtt | ttgttttttg | tttttgagac | aaagcttcac | tctgtctcct | gggctggagt | 17700 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|--------------|-------|
| cagtggcacc | atcatagctc | actgtactct | tgaccttttg | ggctcaagtg | atccagtgat | 17760 |
| cctcctacct | cagcctcctg | agtagctggg | actacaggca | catgtcacca | cactcggcta | 17820 |
| attttttttt | tctctttaat | ttctgtagag | acagggcctc | actatattgc | ccaggctggt | 17880 |
| ctttaactcc | tgggctcaag | caatcctttc | ttctcagcct | cccaaagtcg | tgagattaga | 17940 |
| gggtgtcagcc | accacatctg | gcgaaaacat | atTTTTTTTat | tactataattt | aatgacttta | 18000 |
| cccttttaat | gtttaaccaa | acactttctca | aacttattga | aaaagtatat | ggttttgtatt | 18060 |
| atTTTaaatg | ccaaatatgt | acatctatct | tgccaaatag | tcttgaaatc | cttgtatatata | 18120 |
| cttaggtaag | gtaaatacaat | ggctttcttt | tttgttatTTt | gttttgTTTT | gtttttgggg | 18180 |
| ggttttgttt | tttgTTTTtg | agacagggcc | tcatttctgTT | gcctgagctg | gagtgcagtg | 18240 |
| gcatgataat | agctcacttg | cagccttgaa | ttcctaggct | caagcgatcc | tcctgcctct | 18300 |
| gcctcccaag | tagctgggat | tacaggtgca | caccgccacg | cctgggttaat | tttttgtttc | 18360 |
| gtttttgttt | gttttttTgt | cgtttgtttt | ttgagacagg | gtcttgctgt | caccaggat | 18420 |
| ggagtgcagt | ggcatgatct | cagctcacct | caacctctgc | ctcccagggt | caagcaattc | 18480 |
| ttgtgcctca | ctcacctgaa | tagctggcac | tacaggcatg | caccaccaag | cccggttaat | 18540 |
| ttttgtatTT | ttgtcagata | cggggTTTTca | ccagggtggc | caggctgggtc | tcaaattcgt | 18600 |
| gacctctggc | agtccccctg | ccttcgtctc | ccagagtgtc | gggattacag | gtgtgaggca | 18660 |
| ctgtgcccag | ccaattTTTT | gtattTTTTg | tagagacgtg | gtcccgtctc | gttgccctgg | 18720 |
| ctagtcttga | actcccagcc | tcaagccgtc | ctcctacctt | gacttcccta | tggctggcat | 18780 |
| tacaggcgtg | agtcaccaca | cttaccatca | tttgctttct | agttaaataa | tgtaattgtt | 18840 |
| cctttttccat | tttcttttcag | attaaacagt | tacaaatgca | ttacagacac | acttcaagaa | 18900 |
| ctggtaaatc | aaagtaaggc | cgctcctcag | tctcccagtg | tacccaaaaa | acctgggtcct | 18960 |
| ccagtgttgt | catctgatcc | aaatatgtcg | agtaatgaag | aagcaggaca | tcatgtaagg | 19020 |
| gacatagtat | atTTTcattc | tgagaataca | ctgttttagaa | gttctccatg | gtaatggtag | 19080 |
| cacagtcatc | ttggggaaag | gtggtagttc | ttagaagtta | tcatgtaagg | attcttgatt | 19140 |
| tcttactgga | gtttataggg | ctaaagggtt | gtgatgccca | gaaacagagc | ctttaactgc | 19200 |
| taattTTTTac | tattttcttt | atTTTtagttt | gaacaaatgc | ttaaattgtc | acagcgatcc | 19260 |
| aaggatgagc | tcttttagtat | tgccctttat | aattggctaa | tacaagtcga | ccttgccagat | 19320 |
| aagctgtctac | aggtaaattct | tttttcatTg | cagttgtgtt | aattattctt | aaggagcata | 19380 |
| actcaatgat | ttaagcacat | atatagatgt | aaaaaattca | gtttctcatc | ccatgcctgc | 19440 |
| tattagatgt | tagtataaag | ctgagtaatg | cagtatcttt | tcctaagggg | caaagtaggc | 19500 |
| tactgtccca | atTTTctTgt | taattcgaag | ctgattggga | tagtttTgtat | tgccgggtag | 19560 |
| aaatcactgg | attatgaata | tgagtcctgt | aggTcatctt | atcttaactc | tgctgttaag | 19620 |
| tactgtgac | ttcagatatg | tccttttacc | taccctaagt | ttcagtgttc | ctcaatctgt | 19680 |
| ttaatgaata | catagcattt | gataatttca | ataatgcctt | tgagctcaat | gtctaggaat | 19740 |
| caatagctgt | gttatcaaag | tttattttaa | aatttgtaat | tttatagtaa | atttcccttt | 19800 |
| tttttttttt | tttttttttg | agatggagtc | tggctctgtt | gcccaggctg | gagtgcagtg | 19860 |
| gcatgatctc | agctcactgc | aacctccgcc | tcccgggttc | cagcaatcct | cctgcttcag | 19920 |
| cctcccaagt | agctgggatt | acaggcaccc | gccaccacgc | acagctaatt | tttatatctt | 19980 |
| tttagtagag | acggggtttt | accagtgtgg | ccaggctggg | ctcaaactcc | tgagctcagg | 20040 |
| tgatctgccc | acctcagctt | cccgaaagtc | ctgatttaca | ggcatgaacc | actgtgcccg | 20100 |
| gccaaatttc | cttttctttt | ttgaggcagg | gtctcaatct | gtagcttagg | ctgaagtgc | 20160 |
| gtgcaatggc | acgataatgg | ctcactgtag | ccttgacctc | cctaggctca | gggtatcctc | 20220 |
| acacctaacc | ctcctgagta | actagaacta | taggcccgc | ccaccacacc | cagctaattt | 20280 |
| ttttgtagag | acgaggTTTT | gccatatatt | gccaggctg | gtctcaaact | cctgagctca | 20340 |
| catgatctgc | ccacctcggc | ctcccaaagt | gcgaggatta | cagacatgag | tcgccatgcc | 20400 |
| cagcctacta | aattattgtt | atcaacctaa | tagaattgtt | ttggaaactc | ttatgctaac | 20460 |
| tgtggtaaaa | caaaaattgt | ttataataag | aaaatttgcc | ctctctttta | tctgttagta | 20520 |
| ttggattata | atTTTgcttg | ttttcataaa | acaaggcaaa | gttgtagttg | acttaaaaaat | 20580 |
| actataTTTT | ccttatcagg | aacattatct | gtaggTgggt | agaaaatttt | tctgaataac | 20640 |
| tatataattt | ctaggTtgct | tctccatttc | tggagccaca | tctagtccga | atggccaaag | 20700 |
| ttgatcaaaa | cagagtTcgt | tatatggatt | tactctggcg | gtattacgag | aagaacagaa | 20760 |
| gtttcagtaa | tgctgctcgt | gtactgtcca | gactggctga | catgcatagg | tatggcataa | 20820 |
| tattcttatt | gtgaagaatg | attcaaaaact | gagctatatg | tacttacatt | cagttttctt | 20880 |
| taatttttaga | agaatctaa | ttttaatata | ctgacctaaa | ttttttaaat | aggatgttac | 20940 |
| tttttagtca | taaatgtatt | tctttatgtg | ttgtctaaaa | ttgtggatct | ctcttatgag | 21000 |
| aaatctaaaa | tagattTTTT | tttaaactca | atgattTTTT | ttcaagtttc | agatggcttt | 21060 |
| ttatgtgtgt | ttggatatgaa | acagtacata | ctaattggcg | tatttTgatc | atcaatcctt | 21120 |
| aagaaattgt | gtaactaaaa | ataagcgTtt | tcccttctag | cacagaaatt | tcacttcagc | 21180 |
| agcgactaga | gtacattgct | cgagccattc | ttagtgccaa | aagttccact | gccatttcat | 21240 |
| caatagctgc | cgatgggtgaa | tttcttcatg | aattagaaga | aaaaatggag | gtaagtgtca | 21300 |
| aagatcttaa | gctgtgtcca | cattgagtag | tagccacata | gttattccac | attccattct | 21360 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| tcccttggta | agtaataggt | ctgagaagtc | attattatttc | tagttgcttt | tgtctgttta | 21420 |
| tatttatttt | tatgttttaga | tataaatctt | aaagattttt | aaggatgcac | ttgggtcata | 21480 |
| aaaacattgc | tataatttag | aagttttctc | tttggcactt | cgaaggttt | ttcccagctg | 21540 |
| ggtgcagtgg | ctcacgcctg | taatcccagc | actttgggag | gccgaggcag | ccagatcatg | 21600 |
| aggtcagaag | ttcgagacca | gcctggccaa | tatggcgaaa | ccttgtctct | acttaaaaaa | 21660 |
| atacaaaatt | agccgggggt | ggtggcacac | acctgtagtc | ccagctactt | gggagactga | 21720 |
| ggcaggagaa | ttgcttgaac | ccaggaagcg | gaggttgcag | tgagctgaga | ttgcaccact | 21780 |
| gcattccagc | ctgggagaca | gactgagact | ctgtctcaaa | aaataataat | aataaaaaat | 21840 |
| aaatgttttt | cccaactggt | tcaacagcaa | gtggattaca | tcacattcac | catttatattt | 21900 |
| ggaagcaaat | aagtagatgt | atgaagtaga | gtaggctaaa | attccctaac | taagagaatc | 21960 |
| aagaacatac | catcgtccaa | atacaaaagt | ttgtttctta | ttcacaaaaa | tccaaggtga | 22020 |
| gtcttctga | ttggcagctg | gctttcctcc | gtgtgggtga | tttaggaacc | caagttctat | 22080 |
| tttctggcac | taccattccc | tagggcctct | gctttatctt | cagcagaggg | tgggaaggaaa | 22140 |
| agaaagaaca | cattcactgt | cttaaaaaact | atagccctga | catgacacac | tacttctact | 22200 |
| cacattcctt | tgaagagaac | ttggttgtat | ggccatacct | cccctacaga | ggaggctgag | 22260 |
| ctgtatagtc | taaccatttg | gctacagtct | tgggaaggtat | aagtattggg | cagcaaggag | 22320 |
| tctgccacag | tatacttctt | gtgaaatcta | ttatgttttag | ttgatgtctg | ttatgataat | 22380 |
| attagcctat | tatgatagaa | atcttcattt | atacattatt | ttagcaaact | taaagtcaga | 22440 |
| tagtaggatc | cgttctttca | aacgtatggt | gatttatcat | aaataaatta | agacatcctg | 22500 |
| ttttctgccc | aaactaggtt | gctaggatcc | aacttcagat | acaggagaca | ctacaaaggc | 22560 |
| agtatctcca | tcattcttct | gtacaggatg | cagttttctca | gctggattct | gagctgatgg | 22620 |
| acataactaa | ggtaataaaa | aagcgaagtga | aatttttata | gtagttacct | aataatgaga | 22680 |
| aatttttgtt | ttttattttg | ctttttgttt | catgggggaa | attaccttat | ctccacaaat | 22740 |
| aagataaggc | atctttggca | gcttgtcact | gggctgacag | atcaccactg | cttcatctga | 22800 |
| ctcctagaaa | aaggctaagc | tactctttcc | aggccagtag | ctacaaagaa | cctatcatcc | 22860 |
| tcgcatgaga | gctgtgttaa | aaccagctta | tttcagcct | gggcaacatg | gcaaaacctc | 22920 |
| atctttacaa | aaaaatagca | aaaaaggcca | ggcactgtgg | ctcacgcctg | taatcccaac | 22980 |
| actttgggag | gctgaggcgg | gcagatcacc | tgaggtcagg | agtttgagac | cagcctgggtc | 23040 |
| aacatgggga | aactctgtct | ctactaaaaa | tacaaaaatt | agccaggcgt | ggtggcatgc | 23100 |
| gccgtgtaatc | ccagctacct | gggaggctga | ggcaggagaa | ttgcttgaac | ccaggagggtg | 23160 |
| ggggtttcag | tgagccgaga | tcattggcact | gcagtctagg | agcctgggcg | acagagaaag | 23220 |
| actccatcaa | aaaaaaaaaa | aaaaaattag | ccagggtgtg | tgggtgtgtg | ttgtagtcca | 23280 |
| tctactcagg | agtctgaggt | gggaggattg | atttagccca | ggaggcccag | ggtgtggtga | 23340 |
| gcctcgatgg | tgctactgca | ttccagcctg | agtgacagag | tgagaccctg | tctcaaaaag | 23400 |
| aaaaaaaaaa | ctaaaaaacc | aaaaccatct | tatttatggc | ctcgcttctt | gccttggaaa | 23460 |
| aactaactta | tctttgctta | actctctaaa | cctctttctc | tctctgtaat | tttctgagca | 23520 |
| gttctcttct | cttcattttat | tcttagacat | agttccaggt | accctgcaac | actttgagat | 23580 |
| ttgtcagtat | tctgtgtgatt | cttcaaccga | ttgtttatac | aacactagtt | ctaaaaatacc | 23640 |
| attgcaggag | gtttgtaggg | aaggtgggga | tggttaattg | gtacaaaaac | aaaatgaata | 23700 |
| agacctatct | gatagcacaa | taggggtgact | atagttaata | ataactgtat | attttaaaat | 23760 |
| agagaatgta | attggattat | ttgtaactca | aaaggataac | tgcttgagga | atagacattc | 23820 |
| tccatgacat | gcttattttct | cattgcatga | ctgtatcaga | acatctcatg | taccccataa | 23880 |
| atacatacac | ctactgtgta | cccacagaaa | tttgaaaaaa | tgaattttta | aattaataaa | 23940 |
| tagaatgtcg | ttgcaacatc | ttcttcccag | ccaagaaaaa | agctctacat | gctaaaatgt | 24000 |
| gtttgaatgt | atttaccata | cccttaccct | tttttttttt | ttttggcggg | gggagacaga | 24060 |
| gtctttctct | gtcaccaggc | tagagtgcac | tggcgtgatc | tcagctgact | gcaacctcca | 24120 |
| ccttctctcag | cctcctgagt | agctgggact | acagccatgc | accaccatgc | ccagctaatt | 24180 |
| tttttttttt | aaatttttagt | agagacgggg | tttcaccata | ttggccagga | tgggtctccat | 24240 |
| ctcccgatct | cgtgatccgc | ccaccttggc | ctcttaaagt | gctgggatta | caggcctgag | 24300 |
| tcaccgtacc | cggcccatat | ccttaacttt | ttaaataatg | agttataacc | agctacatac | 24360 |
| atcatcacat | ctttatatca | tatttcagaa | actttatgta | aaatcttttg | ttattttttta | 24420 |
| attttcaagg | agtgttcac | tattaatctc | tgaatgttga | tctctagtgt | gatgttaatt | 24480 |
| ttgggatttt | ctctcacagc | tttatgggga | atttgctgac | ccattttaac | ttgcagagtg | 24540 |
| caaacttgca | ataattcatt | gtgccgggtta | ttcagaccct | atattgggtgc | agacactttg | 24600 |
| gcaagatatc | atagagaaag | gtaagtgttc | agttataggt | atgttagcat | acgttatgta | 24660 |
| gtgacttggg | ggaggaatgc | aagctgtcag | taactaatat | aatgcaagct | gctagtgggt | 24720 |
| catgaaaatt | gtgtatacct | aagaagagag | taagtgggaag | tcacctgggt | atgggtggagg | 24780 |
| atgatcatat | acagaatgac | ccaagtgaat | attcggggaga | atactcagtg | aaaagggttat | 24840 |
| ttaattttata | ttattttgtgc | tgccctataa | aagatactga | gacactcacc | tcagaatcta | 24900 |
| ataaccagta | taacctggta | agacatgaga | gtatctcaga | caataacaga | aacaccaaatt | 24960 |
| ctgttaatca | tattaatgtg | actatctgtt | ctaaagtatt | ttgaaccttg | aaacagaatt | 25020 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aaataaccaa | tgtaaacatt | tcacattaaa | agtaatttgg | gtttcaaagt | acatgtcttt | 25080 |
| ttgttacaga | attgagtgac | agtgtgacat | tgagctcctc | ggatagaagt | catgtctctta | 25140 |
| gtctcaagat | tggtctcctt | ggtaaaatth | atgctggcac | accacgcttc | tttccttttag | 25200 |
| gtaagctgtg | atcttaggtg | cagtcacgta | ttttctgttc | tgatggtttt | ctccggttgat | 25260 |
| atggacaaat | aacgatcttt | cgagtaaaat | aaagagttht | tttgctatth | agttcagcac | 25320 |
| tttaattctg | cctctccgga | aagacttcca | aagaatggca | gaatttggtt | atgaagagtt | 25380 |
| gagtatgaaa | ctttctgtga | ctaactttcc | aagtttata | tacctgtctt | aggattgtgc | 25440 |
| tgactgacaa | actatgatta | tattgttggg | aaccctatac | aagtttctga | agagaaaaga | 25500 |
| aaaacggttg | atgtttttgt | gcataggtta | tctgtgattg | attcaactgt | tctttttttta | 25560 |
| tggtgagggc | atgtttttct | ttaaaatagc | aaataattat | gttaaaactt | agtgtttgaa | 25620 |
| tcccttttct | aatgagatat | ggtgggtata | atthtttaaat | aaggtagcta | attatgagct | 25680 |
| atthggcaac | ctacaagtgt | tttctcagtt | ggtaaaacaa | tagaagcaac | ataaatacat | 25740 |
| ccataaaatta | gaatatcaac | tacttttgtg | ttatthtaaa | atattgagag | acatgaaaat | 25800 |
| cctcacaata | taactttttt | tttttttttt | gagacagagg | ctttctctgt | cgcccagggt | 25860 |
| ggagtgggaat | gatgccatct | cggctcactg | caacttctgc | cttccagggt | caagcagttc | 25920 |
| tctgtcctag | cctcccaagt | aggtgggatt | acaggtgcct | gcaaccacgc | ctggctaatt | 25980 |
| ttctgtatth | ttattagaaa | tgaggtttcc | ccatgttggt | taggctgggt | tcaaactcct | 26040 |
| ggcctcagggt | gatccgcttg | ccttggcctc | ccaaggtgct | gggattaaag | gcgttcgcca | 26100 |
| ctgtgcccag | cctaattttt | tttttttttt | ttcaaagtga | cattcaaact | tgthttacaga | 26160 |
| ccatctctga | cttaggggtct | attccctctg | gacatagtca | gaaataaaac | catttttattc | 26220 |
| atacccttac | ttthgtaggt | ataatatgga | aacggttccc | tttccatacc | atthttattga | 26280 |
| tcctaaaaat | aaagagaaat | aaaagagcaa | atacataact | tataataatg | tttataagtg | 26340 |
| tgtgaaactg | gtacttttga | tagttgtttt | aaaaaacact | gcaccatggc | tgggcagttg | 26400 |
| ggctcacagg | tgtaatccca | gcactttggg | aggccgaggc | ggatggatcg | cttgagccca | 26460 |
| ggagtccgag | accagcctgg | gcaacatggc | aaaaccctgt | ctctacaaaa | aaataggaaa | 26520 |
| attatccagg | catagtggca | tgcgcctgtg | gttccagcta | ctcgggaggc | tatgggtggga | 26580 |
| ggatcacttg | agcctgggag | gtgaaaactg | cagtgtgctg | agatcgaacc | actgcactcc | 26640 |
| aacctcagtg | acacagtggg | accccattht | aataaaataa | taaaataaata | acactgtatt | 26700 |
| gtacatagtt | ctthtttaagg | aattthtcat | ttaatthtaga | aataatcatg | tgggctthtgt | 26760 |
| gtggtggctc | acacctgtaa | tctcaacact | ttggagaggc | aaaggcagga | agattgtctg | 26820 |
| aagccaggag | tttgagacca | gcctgggcat | agcaagcccc | gtctctacaa | aaaaaattaa | 26880 |
| gattagctag | gcatggtagc | acgtgcctat | agtcctagct | aatcaggctg | agttaggagg | 26940 |
| atthctatgt | ttactttata | tatatataat | ttthtcttht | gatagagaag | ggatctcatg | 27000 |
| gtgttgccca | agctagtctt | gaattagcca | cgcctagcta | atthttthtgt | atthtttaata | 27060 |
| gagacaggggt | ttcaccatgt | tggccaggct | ggtctcgaac | tcctgacctc | agggtgatctg | 27120 |
| ctcaccttgg | cctcccatag | tgctgggatt | ataagtgcga | accaccacgc | ctggccataa | 27180 |
| ctataaaatth | ggctgttact | gtttatgata | agataggcag | ttaaaagtaa | gaatgaggcc | 27240 |
| acagttagaa | ctgtcaaata | aatctagggg | tggggcatta | aaaaacacat | ttaatattht | 27300 |
| tgaaatcagg | atgcagttgc | cctthtctga | aaagctgtta | aagtgaggaa | acctatthtat | 27360 |
| ttatthtatth | atthtattht | ttatthtatth | atthtttatth | atcattcttg | ggtgtthtct | 27420 |
| gcagaggggg | atthggcagg | gtcacaggac | aatagtggag | ggaagggtcag | cagataaaca | 27480 |
| agtgaacaaa | ggctctctgg | tttcttaggc | agaggacct | gcggctgcct | tccgcagcgt | 27540 |
| ttgtgtccct | gggtacttga | gattagggag | tggtgatgac | tcttaacgag | catgtgtccg | 27600 |
| catgtgtcct | tcaagcgtct | gtthtaacaaa | gcacatcttg | caccgcccct | aatccattta | 27660 |
| accctgagtg | gacacagcac | atgtthtcaga | gagcacagggt | ttgggggtaa | ggtcacagat | 27720 |
| caacaggatc | ccaaggcaga | agaatthttt | ttagtacaga | acaaaatgaa | aagtctccca | 27780 |
| tgtctacctc | tttctataca | gacacggcaa | ccatccgatt | cctcaatctt | ttccccacct | 27840 |
| ttccccctct | tctattccac | aaaactggca | ttgtcatcat | ggcccgttct | caatgagctg | 27900 |
| ttgggcacac | ctcccagatg | gggtgggtgg | cgggcagagg | ggctcctcac | ttcccagtag | 27960 |
| gggcggcccg | gcagaggtgc | ccctcacctc | cgggacgggg | cggctggccg | ggcggggggg | 28020 |
| tgaccccccc | acctccctcc | cggacagggc | ggctggcccg | gcgggggggct | gacccccccc | 28080 |
| tcctccctcc | cggatggggc | ggctggcccg | gcagaggggc | tcctcacttc | ccagtagggg | 28140 |
| cggccggggca | gaggcgcccc | tcacctcccg | gacggggcgg | ctggccaggc | gggggggtga | 28200 |
| ccccccacc | tcctcccg | acgggggtgg | tgccggggcg | agggggtcct | cacttctcag | 28260 |
| acggggcagc | tgctggggcg | aggggtcct | cacttctcag | acagggcggg | tgccaggcag | 28320 |
| agggctcct | cacttctcag | acgggggtgg | cgggcagaga | cgctcctcac | atcccggtat | 28380 |
| gggcgacagg | gcagagggcg | tccccacatc | tcagatgatg | gggtggccgg | cagagacgtg | 28440 |
| cctcacttcc | tagatgggat | ggcggccggg | aagaggcgct | cctcacttcc | tagatgggat | 28500 |
| ggcgggtggg | cagagatgct | cctcacttth | cagactgggc | agccaggcag | agggggtcct | 28560 |
| cacatcccag | acgatgggcg | gccaggcaga | gacgtcctc | acttcccaga | caggggtggcg | 28620 |
| gccgggcaga | ggctgcaatc | tcggcactth | gggaggccaa | ggcaggctgc | tgggaggtgg | 28680 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aggtttagc | gagccgagat | cacgccactg | cactccagcc | tgggcacccat | tgagcactga | 28740 |
| gtgaaggaga | ctccgtctgc | aatccccggca | cctctggagg | ccgaggctgg | cgatcactc | 28800 |
| gcggttagga | gctggagacc | agccccggcca | acacagcgaa | accccgctc | cacccaaaaa | 28860 |
| atacaaaaac | cagtcaggcg | tggcggcgcg | cacctgcaat | cgcaggcact | cggcaggctg | 28920 |
| aggcaggaga | atcaggcagg | gaggttgacg | tgagccgaga | tagcagtaca | gtccagcttc | 28980 |
| ggctcggcat | cagagggaga | ccttggaag | aggggagagg | gacagggaga | gggacagggg | 29040 |
| caggaaacct | atTTTTTTT | aatactgtta | ctaaaaaaa | ttatcagtga | agtcctcttc | 29100 |
| aatattggga | tcgtgaatcg | tctctgtttt | cttcttatat | ctttctgagt | tttctaggtt | 29160 |
| ctgtaatttt | aatttttagga | cattttcctc | atcccagaaa | gaaactctgt | gctcattagt | 29220 |
| tgctacttcc | cattccttca | caccctccag | ccctaggcag | ccactaatct | acttttagatt | 29280 |
| tgctgttct | ggtatatatc | ttacttttat | ttaaaaaaa | ctttttttt | cttttaagct | 29340 |
| gagagtgatg | gtgcacactt | gtagccccag | cttacttggg | aggttgaggt | gggaggattg | 29400 |
| agctcaggat | ttcaaggctg | tcgtgcactg | tagttgtctc | tatgaatagc | cactatttct | 29460 |
| agtctgggca | acatagcaaa | aaaaaccccc | cgccccaaa | aattgcaatt | ggatttcaga | 29520 |
| agatatcccc | ctagaaacta | ttcagttatg | aataagacct | accttttagt | atcaagagct | 29580 |
| aaaaatccaa | atttccgata | ttttttttt | ttcccagatt | ttattgtaca | gttttttagaa | 29640 |
| cagcaggttt | gtactttgaa | ctgggatgtg | ggcttcgtaa | tacagacaat | gaatgaaatt | 29700 |
| ggagtaccat | tacctagact | actagaagtt | tatgatcagt | tgttcaaatc | acgggtaagg | 29760 |
| aaaatattaa | ataacataaa | attattttat | ttaattaaag | taactttgta | gatatagagt | 29820 |
| ggggatattt | gattgcattt | ttgtatccta | tcacttagtc | taattacact | tggttgagtc | 29880 |
| ttggaaatta | tgcttttgac | tttttaaact | gataatgaga | gttgctttcc | tgtatatcat | 29940 |
| gattaaaaatg | aaatattatt | ttgtaattat | aataaataatg | ctttactctt | ggtgaaagag | 30000 |
| gctaaccaca | ggtgtgggct | aaactcatta | cattaaagaat | catcatttgc | tttaaaagaa | 30060 |
| caagattaca | ttgtatttat | ttactataac | ctcatctaaa | atatcagtgc | ttaaagatcc | 30120 |
| ttctcaccct | gctgaacctt | atcagactat | atgttttgta | atttttatgc | taaggataaa | 30180 |
| agatccaaat | aaaaacttgt | caaagtagat | tgtgtctttt | atagcagcat | cacacagtgc | 30240 |
| tttacaacat | tagcctgtga | tggaaatgag | caggtaactg | tagtatctcc | atcttatatt | 30300 |
| gcaaaaaaca | agagcagaga | tgttaaataa | cctgcttaag | tcacatggct | agtaactggg | 30360 |
| gaagccagac | ctagaattaa | gtttctgtta | ctgctagttt | agtctcttta | tgatgtcaga | 30420 |
| ctaaatctgc | ataggttcaa | agtaaaaagt | gtgtcacaca | ccatagaaa | aaagattttt | 30480 |
| ctcttatctc | agattcctaa | gcgggacatt | tacatgtctc | gcaaagtaga | ttggtatatc | 30540 |
| aaatattgct | cctaagtaat | atcatagtgt | tgtaatttaa | taagttttta | atgttgtttg | 30600 |
| aaatattaac | tataatcaga | tatataattt | agtagccatg | tgatattaaa | tgctttttta | 30660 |
| tagcgataag | ttttgcatgg | atcctgatgt | ctactttagt | ataaatgatt | taaataatca | 30720 |
| attgacacaa | tttgcttcac | atttcattat | gtatatttct | tcataggatc | cattctggaa | 30780 |
| cagaatgaag | aagccactgc | accttttgga | ttgtatacat | gtattattga | taagatatgt | 30840 |
| tgagaatccc | agccaagtgt | taaattgtga | aaggtaacta | tgaattaaat | attggatcag | 30900 |
| caaaagcttt | taaatgcttc | taataaatac | ctgggtaaaa | aatttgaaga | gaagatggga | 30960 |
| agattcttgt | gtatattagc | aataactatt | tgaatgatat | tgatcaccat | gtatgaaaaa | 31020 |
| taggagtttt | ttccattttt | aacccttgct | ctaaactcct | tctacagctg | aacatacata | 31080 |
| atgtattcat | ttcttctact | ttagattagt | gatctaggac | caaaacattt | caattatgtc | 31140 |
| tttgtgatat | tattggccat | ttaagggata | ttcttttgaa | aaagaatatt | agcaggaatc | 31200 |
| atctcttact | gctttcttct | cattgtaaaa | atcttcaggc | caggcgtggg | ggctcacacc | 31260 |
| tgtaatccca | gcactttggg | aggctgagat | gggaggatca | tgagggtcaag | agatcgagac | 31320 |
| catcctggct | aacacgtgaa | accccgctc | tactaaaaat | acaaaaaaat | tagctgggcg | 31380 |
| tgggtggcggg | cacctgtagt | ccagctaca | cgggaggctg | aggcaggaga | atggcggtgaa | 31440 |
| cccaggaggc | agagggtgca | gtgagccgag | atggcgccac | tgactccag | cctgagtgc | 31500 |
| agagcgagac | tccgtctcaa | aaaaaaaaa | aaaatcttca | aatggaacct | acctacacct | 31560 |
| aagttttctt | ttttacttta | tttcttattt | acttaatcac | atggtctttc | ctcttctgtg | 31620 |
| agaattaaag | ttgccagaag | ttggtgggga | agaagtctcg | caggaggaaa | tgtttgtaaa | 31680 |
| tgtataatta | atcatgtgtc | tttttcgttg | taggagaaga | tttacaatc | tctgcctgga | 31740 |
| tgctgtttgt | ggttaccttg | ttgagctcca | gtctatgagc | tcgtcagtag | cagtacaagc | 31800 |
| catcactggg | aattttaaat | ctcttcaagc | taaattagaa | cggcttcatt | aattactgtg | 31860 |
| atatactttc | gtccgtttta | tgatctgtaa | aataaaaaact | cagctgggtc | cagatatcag | 31920 |
| gtgttctaaa | tctaagaatg | taagaacaat | cttaatagaa | atatgttttt | aataagtggc | 31980 |
| taatatctac | aaatagtacc | tttgctaaat | gaattctttt | ttatgactat | tttgtttttt | 32040 |
| agtaattggg | tgaaaaaaca | actgaaatga | gattattttt | tatttttaaca | taaggattaa | 32100 |
| aaaaatttag | aaactcttat | tttgaattgt | actgcaggca | gaaatttcga | atztatatta | 32160 |
| ttcatttttca | agttagtcca | aggatattgg | cattaaaaact | ccactaggcg | gccaggcaca | 32220 |
| gtgacttaca | cctgtaatcc | cagcactttg | ggaggccaag | gtgggcgaat | cacgaggcca | 32280 |
| agagtttgag | accaacctgg | ccaacatggt | gaaaccccat | ctctactaaa | aatacaaaaa | 32340 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|------------|-------|
| aaatagcca | ggcgtggtgg | cgggcgccctg | taatcccagc | tactcgggag | gctgagggag | 32400 |
| jtgaatcact | tgaacccggg | aggcagaggt | ttcagtgagt | caaaatcgca | ccattgcact | 32460 |
| ccagcccagg | caacagggcg | agactctgtc | tcaaaaaaca | aaaaaacctc | aaataggcta | 32520 |
| agcagatcca | ttcccataat | agtggattct | aaaaccgtcc | ttaaataggc | aaataactga | 32580 |
| ctttttcaaa | acttttttta | ggtgttgggt | tcacccttga | aagaactgtc | ctctaacaac | 32640 |
| tggttttgtc | agttaaagcc | cttgagaatt | gacatagcta | tatacctggt | tgagcaggtg | 32700 |
| ataaaacttg | taactaatgt | tgtgtcctga | aaacctacac | agggaggtac | tgttttccct | 32760 |
| tagtgtctac | ctggctgctt | ggccttgtga | ctactgattc | cattagagca | gtggttctca | 32820 |
| aagtatgtgc | tccaaaccag | aagcatcagc | atcagcatca | gcacaccta | ggaatttgtt | 32880 |
| agaaatgcaa | attctcgagc | cccaaccag | acctactgaa | tcaaaaacgt | gggggatgag | 32940 |
| gccctgcttt | ctatgtttta | acaagctctc | caggagattt | tgggtgcatgt | caaatttgaa | 33000 |
| agccactgca | gtaaaggata | ctgctacctt | ccatagttta | tggactgagc | tacctatctg | 33060 |
| gctcctcctc | tgtgaataac | cacacacaca | aattttgccc | aaggcacaca | atatataaag | 33120 |
| caaaactgtt | agtaatgtac | tttttaatta | ttccttaaca | aaatagaata | accaaaccac | 33180 |
| atgcttcaaa | gtaatagcaa | caagagagaa | gaagagtggg | aatgaccaga | gctaacaaaa | 33240 |
| cactctattc | ctttctctct | tttttttttt | tttggagaca | gaatctcacc | ctgtagccca | 33300 |
| gcctggagtg | cagtgggtgcg | atcccggctc | actgcaacct | ctgcctcaca | ggtttgaagc | 33360 |
| aatttgccctg | cctcagcctc | tcgagtagct | gggattgcag | gtgtgcgcca | ccatacccag | 33420 |
| ctaatttttg | tatttttagt | agagatgggt | ttcaccatgt | tggccaggct | ggtcttgaac | 33480 |
| tccctgacctc | aagtgatctg | cccgcctcca | cctcccaaag | tggtgagatt | acagacgtga | 33540 |
| gccaatgtgc | ctggcctatt | cccttctctc | tttatgctac | cacaaataat | taccttctgt | 33600 |
| ttattgtaag | tgatgcatgt | ctaacaattt | gtacaataca | ttttgaatat | atttttctct | 33660 |
| ccattattgt | cttttcccaa | gaccataggg | ttgccttctc | tacatttggt | ctcttagaat | 33720 |
| tcagctccct | tttccctata | atcttctaat | gtagaatatt | taatagaatg | ccagaacgtc | 33780 |
| actcagtggg | tactactacc | tcttattttt | caacttttca | gtttcttaag | tttagcggtt | 33840 |
| tttgaatatg | taaagtgaat | gtatgcgata | cattaattcg | ttttataaat | ttaaa | 33895 |

<210> 12094

<211> 24477

<212> DNA

<213> Homo sapiens

<400> 12094

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|------|
| gaggctcaac | taagtgaaaa | gatttcactt | caggcaattc | agcagttggt | tcgaaaatca | 60 |
| tatcaggctc | tggcttttatg | gaaacttctt | tgtgaacatc | aattcactat | cattgtggca | 120 |
| gaacttcaga | aggtaatttt | ttttattttt | ttatgattat | accattaata | ctatgttttg | 180 |
| attttttgga | tgagtatttt | ggcttttgag | gggattattt | tgggaagcat | ttaagttatg | 240 |
| atgaagttag | tatgttatgg | gaagatggca | caaaaaaagc | gtaccaactt | gggggacctc | 300 |
| ttttttcaaa | gccgcaagtt | tttacttgtg | ggtatgtgaa | tgaagtcata | ctttacaaaa | 360 |
| catatttttt | aaaacagtg | actttaccct | ttatttgagc | tacaggttct | tctgagaatc | 420 |
| tgataaaaagc | tatctctcac | tacccttaaa | gaaatgcata | tcgacatgga | cacacagact | 480 |
| tttgcttata | atttcaaagg | gcccacaac | ctaaattaaa | tactcttgac | tgggcaccat | 540 |
| gcctcacgcc | tgtgatccca | acactttggt | aggctgaggc | aggaggatca | cttgagccta | 600 |
| ggaattcaag | actatcctgg | gcaagatgtc | aggacccatc | tctactaaaa | ataaaaaata | 660 |
| aattagtcaa | gtgtgggtggc | acatgcctgt | agtcccagct | acttgggagg | ctgaagtggg | 720 |
| aggagcactt | gagcctggga | ggttgaggcg | ccacttagcc | atgatggtgc | cactgcaccc | 780 |
| cagcctgggt | gacagagtga | gacctgtct | ctctctgtct | ctctcacaca | cacacacaca | 840 |
| cacacacaca | cacacatata | caccactcct | acttcatttt | atgttttctt | tttttttttt | 900 |
| ttaagagatg | gagtctcact | ctgtcgccca | ggctgcagtt | gtgcaatctc | ggctcgctgc | 960 |
| aacctccacc | tcccgggttc | tagcaattct | cctgcctcag | cctcctgagt | agctgggatt | 1020 |
| acaggtgcat | gccaccacgc | ccagctaatt | ttttgtattt | tagtagagac | ggggtttcac | 1080 |
| cgtgttgccc | agggtgatct | cgaactcctg | agctcaggta | atccacccgc | ctcagccacc | 1140 |
| caaaatgcta | ggattacaga | cgtgaccac | catgcccggc | aactgctcct | actttaaagg | 1200 |
| aagatattta | tcactgtagg | aaataaatgg | ttcatatttc | ttttgatgtt | cacatttgaa | 1260 |
| tccttttctaa | ggataaggat | aatcaacatt | aatctaaatg | ttagatagaa | tatatagagg | 1320 |
| aaatttattc | ctacctttta | tttaattgtg | agcatttcta | aacgtataca | aaagtagagc | 1380 |
| aaaaactgta | actcccatat | acatttgact | cattcagcat | tttcaagata | ctgtgtttct | 1440 |
| aaaaaaaata | gacagttcct | tgaacaacaa | caatgtcatg | atcagttacc | agtttttctt | 1500 |
| gagacagtgt | ctcgctctgt | caccagggct | ggagtgcagt | ggcatgatca | cggctcactg | 1560 |
| cacccttgac | ctctctggac | tccagtgatt | ctcctacttt | agcctcccga | gtagctggta | 1620 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctataggcac | gcaccactac | gcctagctaa | tttttgtatt | tttttgtgga | gatgggggtt | 1680 |
| caccgtatct | cctaggctgg | atagttacca | atattaactg | tcaatatattg | atagcaaaat | 1740 |
| ctgtctttaa | aatgtctttt | tacagattgg | ttcattcaaa | tcaggatcta | aacagtttaa | 1800 |
| gggggttgct | catggaat | gttttctct | ttcatctgtt | tcagtctaaa | gcagcttttc | 1860 |
| cttctttttc | ttttccttgc | tggtgccttg | tagaaatcca | gtcatccatc | cagtagaatg | 1920 |
| tccagcattc | taaggacatt | ctaaggcttt | ttttttttta | atcctctttg | tagcgagctt | 1980 |
| cttctcttat | ctcctgcatt | ttctataaaa | tgaaagttaa | ttatataggc | ttgattcagt | 2040 |
| tcaggctcct | ttttgaggaa | gaatagaata | cttcataggt | agtgggttat | tcacagact | 2100 |
| gttagaagat | acaaaagggt | tcgttgctct | tcttttagtt | atactaagat | aaattgctgg | 2160 |
| attcaagtag | taagccta | actgccattg | tggaattctc | catcagattt | taatcatcca | 2220 |
| ttgataatca | ttgctggaat | ttattatttc | atttaggatt | acaaaagggt | aattatttatt | 2280 |
| tatttgtttg | tttgtttttt | attttttttg | agacagtgtc | tcattctgtc | accagggtg | 2340 |
| gagtgctgtg | gagcaatctg | agatcactgt | aacctccacc | tcccgggtac | aagcagttct | 2400 |
| cctgcctcag | cttcccagat | agctgggact | acaggcatgt | gccacaacgc | ctggctgatt | 2460 |
| ttttagattt | tagtaagaga | ccgggtttcg | ccatgttggc | caggctgggtg | ttgaactcct | 2520 |
| gacgtcaggt | gatctacctg | ccttggcctc | ccaaagtgtc | gggattacag | gcatgagcca | 2580 |
| ccatgcccgg | ccaaaaggat | aataattttta | atctgtgatt | ccttccccag | ttactagctg | 2640 |
| caattctgta | aaaaaaaaaa | aaaaaattct | ttttccttgt | cctgtatgga | tatttcatta | 2700 |
| ctctgaaaca | cttacttttt | gactctcgta | taccattttt | caacgttgga | aggcagctct | 2760 |
| ctcattcttt | ccactagtgt | ccaatgaata | gtgtggcttt | tggttggtgg | tttgtttctt | 2820 |
| ttaaatacat | actgtttttt | atttttaaaa | attcaagcta | atataattta | ttatgaaact | 2880 |
| tatctttttc | ataccaagtta | gaataataat | tttgagtttt | atagagtgat | aaataatttg | 2940 |
| taggttaggt | tttatcctgg | gtatgttttt | gtgatccatc | ttcaaagctc | tcttccctac | 3000 |
| atcaccaatg | gcatgctcaa | tgaatgcaaa | ttaaagattt | gttcaagaat | tttaacacag | 3060 |
| tttgggtatt | tccttgaatt | tagaaaaaag | agatagcagt | cacatcacta | acagaatctt | 3120 |
| ttactatagt | ataaatcaat | acttttagagc | ttcatttgga | caagcagatt | tgttcacaa | 3180 |
| acagattaaa | ctccaatatt | attataaggc | ctagaataat | ggaattctaa | cagtgtttag | 3240 |
| gaaggagtaa | tatgtaagcc | caagattttc | aaatatagcc | aagtgattgt | tttttccatt | 3300 |
| ttataaccaa | agccaggaga | tctgactcta | gttttggtct | tacttaagct | ttacttttct | 3360 |
| catttggaaa | gtgagagttt | tggactagat | ctactgtagg | ttcttttcca | actctctatg | 3420 |
| attttatgta | agttcgcaaa | aatttggttc | tactaatag | tatattttcg | cttttcaatt | 3480 |
| atagagtcta | ttaatattta | ggttatttta | atttattaaa | ataatttcat | tatgtttaga | 3540 |
| aatatgggat | ttctataatt | gtgatagaaa | agttttatgc | tcctaggaac | ttcaagagca | 3600 |
| gctgaagatc | accaccttta | aagatcttgt | aatcaggggc | aaagaactca | caggggcatt | 3660 |
| aattgcttct | cttatcaact | gctacatcag | agataatgcc | gctgttgatg | gcattagttt | 3720 |
| acattttacag | gatatctgcc | cacttctata | tagcactgat | gatgcaattt | gttctaaggt | 3780 |
| atgatacttt | attacctatt | tcattgtttg | ttataagagg | tatcatgtat | gatgaaccat | 3840 |
| cttgtttcac | ttaatatagg | acctcagtc | gttagatctc | ttaacctctc | ctagcctcag | 3900 |
| aatcctcatc | taagaaaggg | gttggaatat | gtggcttctt | aaaaccagtg | tatactcttt | 3960 |
| taagcttagc | ttttcttttt | aaaaatat | ttattttatt | atlttgacaca | gggtttcact | 4020 |
| ctgttgctta | ggctgtagt | cagtgtgtgt | atcatagctc | acagcagctt | ctaagtccta | 4080 |
| gactcaagca | ggcctctcat | gtagctaggg | gctacgggtg | tgccactacta | caccagcca | 4140 |
| atttttttgt | tttttataga | gacaagttct | gatttgttgc | acaggctggg | cttgaactct | 4200 |
| tggtctcaag | tgatcctcct | gcctcagcct | cccatagctc | tggtgattata | agtgtgagcc | 4260 |
| accatgccc | gccctccttt | aagtttttca | taaagaatat | tctctctttt | tttttaagac | 4320 |
| tgagtacgat | ctcagctcac | tgcaacctcc | acctcccagg | ttcaagtgtat | tctcctgcct | 4380 |
| cggcctccca | aatagctggg | attacaggtg | tgccatcatc | cacctggcta | attttttata | 4440 |
| tttttggtag | agacaggatt | tcaccatgtt | gtctaggtg | gttttgaact | cctgacctcc | 4500 |
| gcctgcctca | gccttgcaaa | gtgttggtat | tatagactatg | agcctctgcg | cctggcccat | 4560 |
| aaagaatctt | tgatagtgtt | tctaggccat | attaaaaaac | caaagggtgag | aaattaagaa | 4620 |
| aatcactaa | atlttagaaat | taaggaaatt | taggggataa | tttatctcct | tagcttaagg | 4680 |
| aaaagtacta | aaacttcaag | taaatctttt | agtgaattag | agttaatggg | ggcattttta | 4740 |
| ttgatccttt | cctacaggtg | gaaaaaataa | ataaatcagt | gtcacatgga | ctgcctgctg | 4800 |
| cccaataatg | tattgactag | gcaagagaat | taccagacaa | aagttctctt | gcttaacata | 4860 |
| tttgggagag | gaattaagaa | tagctaggaa | tctttgggtca | aaaacttttc | tgccataaaat | 4920 |
| taagaagtaa | gtttgttagag | ttgttttcat | tttaatggta | ataaccatat | ataaatttag | 4980 |
| acatagacta | aaacttagtt | gacagcatca | tctgtctgtc | tgattttata | tatttttaag | 5040 |
| ttcttgttat | ctcctcttct | aggcaaatga | gcttctccag | cgttcccgac | aagttcaaaa | 5100 |
| taagactgaa | aaagaaagaa | tggttaaggga | atcattaaag | gaatatcaaa | aaattagcaa | 5160 |
| tcaagtggac | ctttccaatg | tttgtgctca | gtatagacaa | ggtgagaaat | aaaatgtttc | 5220 |
| ttgtatcttt | tactcaactc | aaaagacaaa | caatagtgtg | tgaatgaagc | aagctaatga | 5280 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tgaaaagcca | ctttccagat | gcaaattcttc | tttcagcatc | agaggccgag | tgaaaggacg | 5340 |
| taggaatgtg | gtatcattgt | gttgcaatat | ttgatgacta | cactgacctg | cagaagctgt | 5400 |
| aatgttcttt | ctattttttt | aaatgtactt | tttttttttt | tttttttttt | tttttgagagt | 5460 |
| ctcgctctgt | cagccaggct | ggagtgcagt | ggcacgactc | cagctcactg | catcctctgc | 5520 |
| ctcccagggt | ccagcaattc | tcctgcctca | gcctcccggg | tagctggtat | tacaggcgca | 5580 |
| cgccaccacg | cccagcta | tttttatatt | tttatttttt | tatttttttt | attttgagac | 5640 |
| agagtcttgc | tctgtcacc | aggctgaagt | gcagtgggtg | gatctcagct | cactgcaagc | 5700 |
| tctgcctccc | aggttcacgc | cattctgcct | cagcctccca | agtagctggg | actacaggcg | 5760 |
| cctgccacca | tgcccggcta | atttttttgt | attttttagta | gagatggggt | tcaccatggt | 5820 |
| agccaggatg | gtctcaatct | cctgacctca | tgatccaccc | acctcagcct | cccaaagcgc | 5880 |
| tgggattaca | ggtgtgagcc | accgcgccc | gccattgccc | agctaatttt | tgtattttta | 5940 |
| gtagagggtg | ggtttttacca | tgtagccag | ggtggtctcg | atctcctgac | ctcagggtgat | 6000 |
| ccaccatctt | cagcctctca | aagtgcctag | attacagaca | tgagccactg | cgcccagccg | 6060 |
| aaatgtataa | cttttttagca | ttagagtctc | agttcttctg | cagttcaatt | actgtatggt | 6120 |
| ttacattgct | ttctggatta | cattttatttt | tcagatatatt | aaaatttttt | attgagtttt | 6180 |
| aaggtataat | ctgcttactt | tttaaaaaat | tacttttaaat | caaatactaac | ataatgtaaa | 6240 |
| ggccataact | atttgcacag | gtattattttt | gaatcccaag | gtattttttt | ccccccagta | 6300 |
| gggaactaaa | acttttccttt | ttgttatattg | aaataggatc | ttttttttcc | aatgaagaaa | 6360 |
| tatatatata | tatatattttt | ttttttttcct | ttttcttttt | ttttttgtga | gacagagtct | 6420 |
| tgttctgtca | cccaggctgg | agtgcattgg | tgcaatctca | gctcactaca | acctctgcct | 6480 |
| cgctagtcca | agtgtattctc | ctgcctcagc | cttttttagta | gctgggatta | caggcgcatg | 6540 |
| ccaccaggcc | cagctaatttt | ttgtattttt | agtagagggtg | gggttttcacc | atgttggtca | 6600 |
| ggctggtctc | gaacccttga | ccttgtgtatc | tgccccctct | cagcctccca | aagtgtctgg | 6660 |
| attacaggcg | tgagccacca | cacctggccc | ccaatgaaga | aatataattta | acagttgcct | 6720 |
| tttaggcata | ttaagacctt | ttccttctga | agacctatca | gaaataatttt | atgttagcag | 6780 |
| ggtgactatt | gtacagtaga | gacataacct | tgatcattat | tttcatgtgc | cagctaagga | 6840 |
| aaaatgtatc | caacttagta | gtaagtcata | ggtcttcatt | cttttctttc | ccatcagtga | 6900 |
| gattttatga | gggtgtgggtg | gaacttttctc | ttacggctgc | agagaaaaaa | gatcctcaag | 6960 |
| gtcttgggct | tcattttctat | aaacatggag | aaccagaaga | agacatagtt | ggacttcagg | 7020 |
| ccttccaaga | aagggtgcatt | ccattacggt | agcagattgt | catctttatg | gatacacagt | 7080 |
| tttctttgca | taattgttttt | tgttttttgt | tttatgtttt | tttttttttt | ttgagacaga | 7140 |
| gtcttgtctc | gtcacctggg | ctggagtgc | gtcgtgtgat | cttggctcac | tgcaatctct | 7200 |
| gcctcccagg | ttcaagctat | tctcgtgcct | cagcctccca | tgtagctggg | attacagggtg | 7260 |
| cacaccacca | cgcttggtca | atttttgtat | tttttagtaga | gacagggttt | caccattttg | 7320 |
| gccaggctgg | tcttgaattc | ctaacctcaa | gtgatccacc | cacctcagtc | ttgcaaagtg | 7380 |
| ctaggattat | agccatcagc | caccgtgtct | ggcctctttg | tgtaaagggtc | gaccacccaa | 7440 |
| agtgtctggga | ttacaggcat | gagccaccat | gtccagtagg | atttcatttt | aaaggataat | 7500 |
| ttttaagtat | tcccaaattt | ggtgagactg | taaaaaagaa | atgtgtgtcc | ttaaaagaaa | 7560 |
| tataggccag | gcacagtggc | tcacgcctgt | aatcccagca | ctttgggagg | ctgagggtggg | 7620 |
| catatcatga | ggtcaggagt | tcgagaccag | cctgggccat | catagtga | ccctgtctct | 7680 |
| actaaaatac | aaaaattagc | caggcggtgg | ggtgcacacc | cgtaatccca | gcaacttggg | 7740 |
| aggctgaggg | aggagaattg | ctttaaccgc | ggaggcagag | gctgcagtga | agctgagatt | 7800 |
| gcaccacaga | actccagcct | gggcgtcaga | gcagggtccc | gtctcggaac | aaagaagaaa | 7860 |
| tatataacct | ttctataaca | tatatatatg | gagggtgttt | tgttttgttt | ttgtttttgt | 7920 |
| ttttgagaca | aagcttcaact | ctgtctcctg | ggctggagtc | agtggcacca | tcatagctca | 7980 |
| ctgtactctt | gacctttttg | gctcaagtga | tccagtgatc | ctcctacctc | agcctcctga | 8040 |
| gtagctggga | ctacaggcac | atgtcaccac | actcggctaa | tttttttttt | ctctttaatt | 8100 |
| tctgtagaga | cagggcctca | ctatatggc | caggctggtc | tttaactcct | gggctcaagc | 8160 |
| aatcctttct | tctcagcctc | ccaaagtgtc | gagattagag | gtgtcagcca | ccacatctgg | 8220 |
| cgaaaacata | tttttttatt | actatatatta | atgactttac | ccttttaattg | tttaaccaa | 8280 |
| cacttctcaa | acttattgaa | aaagtatatg | gtttgtatta | ttttaaatgc | caaataatgta | 8340 |
| catctattct | gccaaatagt | cttgaaatcc | ttgtatatac | ttaggtaagg | taaatcaatg | 8400 |
| gctttctttt | ttgttatattg | ttttgttttg | tttttggggg | gttttggttt | ttgtttttga | 8460 |
| gacagggcct | cattctgttg | cctgagctgg | agtgcagtgg | catgataata | gctcacttgc | 8520 |
| agccttgaat | tcctaggctc | aagcgatcct | cctgcctctg | cctcccaagt | agctgggatt | 8580 |
| acagggtcac | accgccacgc | ctgggttaatt | ttttgtttcg | ttttgttttg | ttttttgttc | 8640 |
| gtttgttttt | tgagacaggg | tcttgcgtgc | accaggatg | gagtgcagtg | gcatgatctc | 8700 |
| agctcacctc | aacctctgcc | tcccaggttc | aagcaattct | tgtgcctcac | tcacctgaat | 8760 |
| agctggcact | acaggcatgc | accaccaagc | ccggctaat | tttgtatttt | tgtcagatac | 8820 |
| gggggtttcac | cagggttggcc | aggctgggtc | caaattcgtg | acctctggca | gtccccctgc | 8880 |
| cttcgtctcc | cagagtgtgc | ggattacagg | tgtgaggcac | tgtgcccagc | caattttttt | 8940 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|-------|
| gtatTTTTtTg | tagagacgtg | gtcccgcTct | gTtgccctgg | ctagtcttga | actcccagcc | 9000 |
| tcaagccgtc | ctcctacctt | gacttcccta | tggttgcat | tacaggcgTg | agtcaccaca | 9060 |
| cttaccatca | tttgctttct | agttaaataa | tgtaattgtt | ccttttccat | tttctttcag | 9120 |
| attaaacagt | tacaaatgca | ttacagacac | acttcaagaa | ctggtaaatc | aaagtaaggc | 9180 |
| cgctcctcag | tctcccagtg | tacccaaaaa | acctggctct | ccagtgttgt | catctgatcc | 9240 |
| aaatatgctg | agtaatgaag | aagcaggaca | tcatgtaagg | gacatagtat | attttcattc | 9300 |
| tgagaataca | ctgttttagaa | gttctccatg | gtaatggtag | cacagtcatc | ttgggggaaag | 9360 |
| gtggtagttc | ttagaagtta | tcatgtaagg | attcttgatt | tcttactgga | gtttataggg | 9420 |
| ctaaaggggt | gtgatgccc | gaaacagagc | cTTtaactgc | taatTTTTac | tattttcttt | 9480 |
| atTTtagttt | gaacaaatgc | ttaaattgtc | acagcgatcc | aaggatgagc | tcttttagtat | 9540 |
| tgccctttat | aattggctaa | tacaagtcga | ccttgCagat | aagctgctac | aggtaaattct | 9600 |
| ttttttattg | cagttgtgtt | aattattctt | aaggagcata | actcaatgat | ttaagcacat | 9660 |
| atatagatgt | aaaaaattca | gtttctcatt | ccatgcctgc | tattagatgt | tagtataaag | 9720 |
| ctgagtaagt | cagtattctt | tcctaagggg | caaagtaggc | tactgctcca | atTTtcttgt | 9780 |
| taattcgaag | ctgattggga | tagtttgtat | tgcggggtag | aaatcactgg | attatgaata | 9840 |
| tgagtctctg | aggTcatctt | atcttaactc | tgctgttaag | tcaactgtgac | ttcagatatg | 9900 |
| tcctttttacc | taccctaagt | ttcagtgTtc | ctcaatctgt | ttaatgaata | catagcattt | 9960 |
| gataatttca | ataatgcctt | tgagctcaat | gtctaggaat | caatagctgt | gttatcaaag | 10020 |
| tttatTTaaa | aatttgtaat | tttatagtaa | atTTcctttt | TTTTTTTTtt | TTTTTTTTtt | 10080 |
| tgagatggag | tctggctctg | ttgcccaggc | tggagtgcag | tggcatgatc | tcagctcact | 10140 |
| gcaacctccg | cctcccgggt | tccagcaatc | ctcctgcttc | agcctcccaa | gtagctggga | 10200 |
| ttcacaggc | ccgcaccac | gcacagctaa | tttttatatc | TTTTtagtag | agacgggggt | 10260 |
| ttaccatgtt | ggccaggctg | gtctcaaaact | cctgagctca | ggTgatctgc | ccacctcagc | 10320 |
| ttcccgaaTg | gctgggatta | caggcatgaa | ccactgtgcc | cggccaaatt | tccttttctt | 10380 |
| ttttgaggca | gggtctcaat | ctgtagctta | ggctgaagtg | cagtgcAatg | gcacgataat | 10440 |
| ggctcactgt | agccttgacc | tccctaggct | caggTgatcc | tcacacctaa | ccctcctgag | 10500 |
| taactagaac | tataggcccg | caccaccaca | cccagcta | ttttttgtag | agacgagggt | 10560 |
| ttgccatata | ttgcccaggc | tggTctcaaa | ctcctgagct | cacatgatct | gcccacctcg | 10620 |
| gcctcccaaa | gtgCgaggat | tacagacatg | agtcgccatg | cccagcctac | taaattattg | 10680 |
| ttatcaacct | aatagaattg | ttttggaac | tcttatgcta | actgtggtaa | aacaaaaatt | 10740 |
| gtttataata | agaaaatttg | ccctctcttt | tatctgttag | tattggatta | taatttttgt | 10800 |
| tgTTTTcata | aaacaaggca | aagttgtagt | tgacttaaaa | atactatatt | ttccttatca | 10860 |
| ggaacattat | ctgtaggTgg | ttagaaaatt | tttctgaata | actatataat | ttctaggttg | 10920 |
| cttctccatt | tctggagcca | catctagtcc | gaatggccaa | agttgatcaa | aacagagttc | 10980 |
| gttatatgga | tttactctgg | cggTattacg | agaagaacag | aagtttcagt | aatgctgctc | 11040 |
| gtgtactgtc | cagactggct | gacatgcata | ggTatggcat | aatattctta | ttgtgaagaa | 11100 |
| tgattcaaaa | ctgagctata | tgtacttaca | ttcagTTTTc | tttaatttta | gaagaatcta | 11160 |
| agttttaata | tactgacct | aattTTTTta | ataggatgtt | actTTTTtagt | cataaatgta | 11220 |
| tttctttatg | tgTgtcttaa | aattgtggat | ctctcttatg | agaaatctaa | aatagatttt | 11280 |
| tttttaaatc | taatgatttt | tttcaagtt | tcagatggct | ttttatgtgt | gtttgggtatg | 11340 |
| aaacagtaca | tactaattga | cgtattttgta | tcactcaatc | ttaaGaaatt | gtgtaactaa | 11400 |
| aaataagcgt | tttcccttct | agcacagaaa | tttcacttca | gcagcgacta | gagtacattg | 11460 |
| ctcgagccat | tcttagtgcc | aaaagttcca | ctgccatttc | atcaatagct | gccgatggTg | 11520 |
| aatttcttca | tgaattagaa | gaaaaaatgg | aggtaagtgc | taaagatctt | aagctgtgtc | 11580 |
| cacattgagt | actagccaca | tagttattcc | acattccatt | cttcccttgg | taagtaatag | 11640 |
| gtctgagaag | tcattattat | tctagttgct | tttgtctgtt | tatattttatt | tttatgttta | 11700 |
| gatataaatc | ttaaagattt | ttaaggatgc | acttgggtca | taaaaacatt | gctataattt | 11760 |
| agaagttttc | tctttggcac | ttcgaaaggT | ttttcccgag | tgggtgcagt | ggctcacgcc | 11820 |
| tgtaatccca | gcactttggg | aggccgaggg | agccagatca | tgaggtcaga | agttcgagac | 11880 |
| cagcctggcc | aatatggcga | aaccttgtct | ctacttaaaa | aaatacaaga | attagccggg | 11940 |
| ggTggTggca | cacacctgta | gtcccagcta | cttgggagac | tgaggcagga | gaattgcttg | 12000 |
| aaccaggaa | gcggaggTtg | cagtgagctg | agattgcacc | actgcattcc | agcctgggag | 12060 |
| acagactgag | actctgtctc | aaaaataaat | aataataaaa | aataaatgtt | tttcccaact | 12120 |
| gtttcaacag | caagtggatt | acatcacatt | caccatttat | tttggaaagca | aataagtaga | 12180 |
| tgtatgaagt | agagtaggct | aaaattccct | aactaagaga | atcaaaaaca | taccatcgTc | 12240 |
| caaatacaaa | agTttgtttc | ttattcacaa | aaatccaagg | tgagtcttcc | tgattggcag | 12300 |
| ctggctttcc | tccgtgtgtt | tgatttagga | accCaagttc | tattttctgg | cactaccatt | 12360 |
| ccctagggcc | tctgctttat | cttcagcaga | gggtggaagg | aaaagaaaga | acacattcac | 12420 |
| tgtcttaaaa | actatagccc | tgacatgaca | cactacttct | actcacattc | ctttgaagag | 12480 |
| aacttggttg | tatggccata | cctcccttac | agaggaggct | gagctgtata | gtctaaccat | 12540 |
| ttggctacag | tcttggaagg | tataagtatt | gggcagcaag | gagtctgcca | cagtatactt | 12600 |

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|-------|
| cctgtgaaat | ctattatggt | tagttgatgt | ctgttatgat | aatattagcc | tattatgata | 12660 |
| gaaatcttca | tttatacat | attttagcaa | acttaaagtc | agatagtagg | atccgttctt | 12720 |
| tcaaacgtat | gttgatttat | cataaataaa | ttaagacatc | ctgttttctg | cccaaactag | 12780 |
| gttgctagga | tccaacttca | gatacaggag | acactacaaa | ggcagtattc | ccatcattct | 12840 |
| tctgtacagg | atgcagtttc | tcagctggat | tctgagctga | tggacataac | taaggtaata | 12900 |
| aaaaagcaag | tgaatttttt | atagtagtta | cctaataatg | agaaattttt | gttttttatt | 12960 |
| ttgctttttg | tttcatgggg | aaaattacct | tatctccaca | aataagataa | ggcatccttg | 13020 |
| gcagcttgtc | actgggctga | cagatcacca | ctgcttcac | tgactcctag | aaaaaggcta | 13080 |
| agctactctt | tccaggccag | tagctacaaa | gaacctatca | tctctgcag | agagctgtgt | 13140 |
| taaaaccagc | ttatttccag | cctgggcaac | atggcaaaac | ctcatcttta | caaaaaaata | 13200 |
| gcaaaaaagg | ccaggcactg | tggctcacgc | ctgtaatcca | acactttggg | aggctgaggc | 13260 |
| gggcagatca | cctgagggtca | ggagtttgag | accagcctgg | tcaacatggg | gaaactctgt | 13320 |
| ctctactaaa | aatacaaaaa | ttagccaggc | gtgggtggcat | gcgcctgtaa | tcccagctac | 13380 |
| ctgggagggt | gaggcaggag | aattgcttga | accaggagg | tgggggtttc | agtgaagcca | 13440 |
| gatcatggca | ctgcagtcta | ggagcctggg | cgacagagca | agactccatc | aaaaaaaaaa | 13500 |
| aaaaaaaaatt | agccagggtgt | ggtggtgtgt | ggttgtagtt | catctactca | ggagtctgag | 13560 |
| gtgggaggat | tgatttagcc | caggaggccc | aggttggtgt | gagcctcgat | ggtgctactg | 13620 |
| cattccagcc | tgagtgcacg | agtgcagacc | tgtctcaaaa | agaaaaaaa | actaaaaaac | 13680 |
| caaaaccatc | ttattttatg | cctcgcttct | tgccttgga | aaactaactt | atctttgctt | 13740 |
| aactctctaa | acctctttct | ctctctgtaa | ttttctgagc | agttccttcc | tcttcattta | 13800 |
| ttcttagaca | tagttccagg | taccttgaaa | cactttgaga | tttgtcagta | ttcctgtgat | 13860 |
| tcttcaaccc | attgtttata | caacactagt | tctaaaatac | cattgcagga | ggtttgtagg | 13920 |
| gaagggtggg | atgggttaatg | ggtacaaaaa | caaaatgaat | aagacctatc | tgatagcaca | 13980 |
| ataggggtgac | tatagtcaat | aataactgta | tattttaaaa | tagagaatgt | aattggatta | 14040 |
| tttgtaactc | aaaaggataa | ctgcttgagg | aatagacatt | ctccatgaca | tgcttatttc | 14100 |
| tcattgcatg | actgtatcag | aacatctcat | gtaccccata | aatacataca | cctactgtgt | 14160 |
| accacagaa | atttgaaaaa | atgaatttta | aaattaataa | atagaatgtc | gttgcaacat | 14220 |
| cttcttccca | gccaaagaaa | aagctctaca | tgctaaaatg | tgtttgaatg | tatttaccat | 14280 |
| acccttacc | tttttttttt | tttttgccgg | ggggagacag | agtctttctc | tgtcaccagg | 14340 |
| ctagagtcca | atggcgtgat | ctcagctgac | tgcaacctcc | accttctctc | gcctcctgag | 14400 |
| tagctgggac | tacagccatg | caccaccatg | cccagctaat | tttttttttt | tttaaatatt | 14460 |
| agtagagacg | gggtttcacc | atattggcca | ggatggtctc | catctcccga | tctcgtgatc | 14520 |
| cgccacctt | ggcctcttaa | agtgcgtggg | ttacaggcct | gagtcaccgt | acccggccca | 14580 |
| tacccttaac | tttttaaata | tggagtata | accagctaca | tacatcatca | catctttata | 14640 |
| tcataatttc | gaaactttat | gtaaaatctt | tggttatttt | ttaattttca | aggagtgcct | 14700 |
| cactattaat | ctctgaatgt | tgatctctag | ttggatgtta | attttgggat | ttctctcac | 14760 |
| agctttatgg | ggaatttgct | gacccattta | aacttgcaga | gtgcaaactt | gcaataattc | 14820 |
| attgtgccgg | ttattcagac | cctatatgtg | tgcagacact | ttggcaagat | atcatagaga | 14880 |
| aaggtaagtg | ttcagttata | ggtatgttag | catagtttat | gtagtgaact | ggtggaggaa | 14940 |
| tgcaagctgc | tagtaactaa | tataatgcaa | gctgctagtg | gctcatgaaa | attgtgtata | 15000 |
| cctaagaaga | gagtaagtgg | aagtcacctg | ggtatggtgg | aggatgatca | tacacagaat | 15060 |
| gaccaagtgc | aatattcggg | agaatactca | gtgaaaaggt | tatttaattt | atattatttg | 15120 |
| tgctgcctta | taaaagatac | tgagacactc | acctcagaat | ctaataacca | gtataacctg | 15180 |
| gtaagacatg | agagtatctc | agacaataac | agaaacacca | aatctgttaa | tcatattaat | 15240 |
| gtgactatct | gttctaaagt | attttgaacc | ttgaaacaga | attaaataac | caatgtaaac | 15300 |
| atttcacatt | aaaagtaatt | tgggtttcaa | atgacatgtc | tttttgttac | agaattgagt | 15360 |
| gacagtgtga | cattgagctc | ctcggataga | atgcatgctc | ttagtctcaa | gattgttctc | 15420 |
| cttgcaaaa | tttatgctgg | cacaccacgc | ttctttcctt | taggtaagct | gtgatcttag | 15480 |
| gtgcagtcac | gtattttctg | ttctgatggt | tttctccgtt | gatattggaca | aataacgatc | 15540 |
| tttcgagtaa | aataaagagt | ttctttgcta | tttagttcag | cactttaatt | ctgcctctcc | 15600 |
| ggaaagactt | caaagaatg | gcagaatttg | ttaatgaaga | gttgagtatg | aaactttctg | 15660 |
| tgactaactt | tccaagttta | tattacctgt | cttaggattg | tgctgactga | caaactatga | 15720 |
| ttatattggt | ggtaacccta | tacaagtttc | tgaagagaaa | agaaaaacgg | ttgatgtttt | 15780 |
| tgtgcatagg | taatctgtga | ttgattcaac | tgttcttttt | ttatgttgag | ggcatgtttt | 15840 |
| tctttaaaa | agcaataaat | tatgttaaaa | cttagtgttt | gaatcccttt | cttaatgaga | 15900 |
| tatgggtgct | ataattttta | aataaggtag | ctaattatga | gctatttgcc | aacctacaag | 15960 |
| tgttttcttc | agtggtaaaa | caatagaagc | aacataaata | catccataaa | ttagaataatc | 16020 |
| aactactttt | gtgttattta | aaaatattga | gagacatgaa | aatcctcaca | atataacttt | 16080 |
| tttttttttt | tttgagacag | aggctttctc | tgctgcccag | gctggagtgg | aatgatgcca | 16140 |
| tctcggctca | ctgcaacttc | tgccttccag | gttcaagcag | ttctcctgcc | tagcctccca | 16200 |
| agtaggtggg | attacagggt | cctgcaacca | cgcttggtca | attttctgta | tttttattag | 16260 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aatgaggtt | tccccatgtt | gtctaggctg | gtctcaaact | cctggcctca | ggtgatccgc | 16320 |
| ttgccttggc | ctcccaaggt | gctgggatta | aaggcgttcg | ccactgtgcc | cagcctaatt | 16380 |
| tttttttttt | ttttttcaaa | tgagcattca | aacttgttta | cagaccatct | ctgacttagg | 16440 |
| gtctattccc | tctggacata | gtcagaaata | aaaccatttt | attcataccc | ttacttttgt | 16500 |
| aggtataata | tggaaacggt | tccctttcca | taccatttta | ttgatcctaa | aaataaagag | 16560 |
| aaataaaaga | gcaataacat | actttatata | aatgtttata | agtgtgtgaa | actgggtactt | 16620 |
| ttgatagtgt | ttttaaaaaa | cactgcacca | tggctgggca | tgggtggctca | caggtgtaat | 16680 |
| cccagcactt | tgggaggccg | aggcggatgg | atcgcttgag | cccaggagtt | cgagaccagc | 16740 |
| ctgggcaaca | tggcaaaacc | ctgtctctac | aaaaaaatag | gaaaattatc | caggcatagt | 16800 |
| ggcatgcgcc | tgtggttcca | gctactcggg | aggctatggg | gggaggatca | cttgagcctg | 16860 |
| ggaggtgaaa | actgcagtga | gctgagatcg | aaccactgca | ctccaacctc | agtgcacacag | 16920 |
| tgagacccca | tttcaataaa | taaataaata | acactgtatt | gtacatagtt | ctttttaagg | 16980 |
| aattttcatt | ttaattttaga | aataatcatg | tgggctttgt | gtgggtggctc | acacctgtaa | 17040 |
| tctcaacact | ttggagaggc | aaaggcagga | agattgcttg | aagccaggag | tttgagacca | 17100 |
| gcctgggcat | agcaagcccc | gtctctacaa | aaaaaattaa | gattagctag | gcatggtagc | 17160 |
| acgtgcctat | agtcctagct | aatcaggctg | agttaggagg | atcttctatgt | tttactttata | 17220 |
| tatatatatt | tttttctttt | gatagagaag | ggatctcatg | gtgttgccca | agctagtctt | 17280 |
| gaattagcca | cacctagcta | atttttttgt | atttttaata | gagacagggt | ttcaccatgt | 17340 |
| tggccaggct | ggtctcgaac | tcctgacctc | agggtgatctg | ctcaccttgg | cctcccatag | 17400 |
| tgtctgggatt | ataggtgcga | accaccacgc | ctggccataa | ctataaattt | ggctgttact | 17460 |
| gtttatgata | agataggcag | ttaaaagtaa | gaatgaggcc | acagttagaa | ctgtcaaata | 17520 |
| aatctagggg | tggggcatta | aaaaacagta | ttaatatctt | tgaaatcagg | atgcagttgc | 17580 |
| cctttttctga | aaagctgtta | aagtgcaggaa | acctatttat | ttattttattt | atattttat | 17640 |
| ttttattgat | cattcttggg | tgtttctcgc | agaggggggat | ttggcagggt | cacaggacaa | 17700 |
| tagtggaggg | aaggtcagca | gataaacaag | tgaacaaagg | tctctggttt | tcctaggcag | 17760 |
| aggaccctgc | ggctgccttc | cgcagcgttt | gtgtccctgg | gtacttgaga | ttagggagtg | 17820 |
| gtgatgactc | ttaacaagca | tgtctccgca | tgtctgcctc | aagcgtctgt | ttaacaaagc | 17880 |
| acatcttgca | ccgcccttaa | tccattttaac | cctgagtggg | cacagcacat | gtttcagaga | 17940 |
| gcacagggtt | gggggtaagg | tcacagatca | acaggatccc | aaggcagaag | aattttttctt | 18000 |
| agtacagaac | aaaatgaaaa | gtctccccat | tctacctctt | tctatacaga | cacggcaacc | 18060 |
| atccgatttc | tcaatctttt | ccccaccttt | ccccctcttc | tattccacaa | aactgccatt | 18120 |
| gtcatcatgg | ccggtttctca | atgagctgtt | gggcacacct | cccagatggg | gtgggtggccg | 18180 |
| ggcagagggg | ctcctcactt | cccagtaggg | gcggccgggg | agaggtgccc | ctcacctccc | 18240 |
| ggacggggcg | gctggccggg | cggggggctg | acccccccac | ctccctcccg | gacagggcgg | 18300 |
| ctggccgggc | ggggggctga | cccccccctc | ctccctcccg | gatggggcgg | ctggccgggc | 18360 |
| agaggggctc | ctcacttccc | agtaggggcg | gccggggcaga | ggcggccctc | acctcccgga | 18420 |
| cggggcggct | ggccaggcgg | ggggctgacc | ccccaacctc | cctcccggac | gggggtggctg | 18480 |
| ccggggcgag | gggtcctctca | cttctcagac | ggggcggtctg | cctgggcggc | aggggtcctt | 18540 |
| cacttctcag | acagggcggt | tgccaggcag | agggctcctc | cacttctcag | agcggggtgg | 18600 |
| ccgggcagag | acgtctctca | catcccggac | ggggcgacag | ggcagaggcg | ctccccacat | 18660 |
| ctcagatgat | gggtggccgg | gcagagacgc | tcctcacttc | ctagatggga | tggcggccgg | 18720 |
| gaagaggcgc | tcctcacttc | ctagatggga | tggcggctgg | gcagagatgc | tcctcacttt | 18780 |
| ccagactggg | cagccaggca | gaggggctcc | tcacatccca | gacgatgggc | ggccaggcag | 18840 |
| agacgtcct | cacttcccag | acaggggtgg | ggccgggcag | aggctgcaat | ctcggcactt | 18900 |
| tgggaggcca | aggcaggctg | ctgggagggtg | gatgtttgtag | ggagccgaga | tcacgccact | 18960 |
| gcactccagc | ctgggcacca | ttgagcactg | agtgaaggag | actccgtctg | caatcccggc | 19020 |
| acctctggag | gccgaggctg | gcggatcact | cgcggttagg | agctggagac | cagcccggcc | 19080 |
| aacacagcaa | aaccccgtct | ccacccaaaa | aatacgaaaa | ccagtcaggc | gtggcggcgc | 19140 |
| gcacctgcaa | tcgcaggcac | tcggcaggct | gaggcaggag | aatcaggcag | ggaggttgca | 19200 |
| gtgagccgag | atagcagtac | agtccagctt | cggctcggca | tcagagggag | accttggaag | 19260 |
| gaggggagag | ggacaggggag | agggacaggg | acaggaaacc | tatttttttt | aaatactgtt | 19320 |
| actaaaaaaa | attatcagtg | aagtcctctt | caatattggg | atcgtgaatc | gtctctgttt | 19380 |
| tcttcttata | tctttcttag | ttttctaggt | tctgtaattt | taatttttagg | acattttcat | 19440 |
| catcccaaaa | agaaactctg | tgtctattag | ttgtcacttc | ccatttccttc | acaccttcca | 19500 |
| gccttaggca | gccactaatc | tacttttagat | ttgcctgttc | tggatatatat | cttacttttta | 19560 |
| tttaaaaaaa | actttttttt | tcttttaagc | tgagagtgtat | gggtgcacact | tgtagcccca | 19620 |
| gcttacttgg | gaggttgagg | tgggaggatt | gagctcagga | tttcaaggct | gtcgtgcact | 19680 |
| gtagtgtgtc | ctatgaatag | ccactatttc | tagtctgggc | aacatagcaa | aaaaaacccc | 19740 |
| ccgccccaaa | aaattgcaat | tggattttcag | aagatatccc | cctagaaact | attcagttat | 19800 |
| gaataagacc | taccttttag | tatcaagagc | taaaaatcca | aattttccgat | cttttttttt | 19860 |
| cttcccagat | tttattgtac | agttttttaga | acagcagggt | tgtactttga | actgggatgt | 19920 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| gggcttcgta | atacagacaa | tgaatgaaat | tggagtacca | ttacctagac | tactagaagt | 19980 |
| ttatgatcag | ttgttcaaat | cacgggtaag | gaaaatatta | aataacataa | aattattttc | 20040 |
| tttaattaaa | gtaactttgt | agatatagag | tgggggtattt | tgattgcatt | tttgtatcct | 20100 |
| atcacttagt | ctaattacac | ttgggttagt | cttggaaaatt | atgctttttga | ctttttaaac | 20160 |
| tgataatgag | agttgtcttc | ctgtatatca | tgattaaaaat | gaaatattat | ttttgaatat | 20220 |
| taataaatat | gctttactct | tggtgaaaaga | ggctaaacca | aggtgtgggc | taaactcatt | 20280 |
| acattaagaa | tcatcatttg | ctttatttttt | ttttttttttt | tttttttttga | gacggcgtct | 20340 |
| cgctctgttg | cccaggccgg | actgcggact | gcagtggcgc | aatctcggct | cactgcaagc | 20400 |
| tccgcttccc | gggttcacgc | cattctcctg | cctcagcctc | cccagtagct | gggactacag | 20460 |
| gcgcccgcga | ccgcgcccgg | ctaattttttt | gtattttttag | tagagacggg | gtttcacctt | 20520 |
| gttagccagg | atggtctcga | tctcctgacc | tcatgatcca | cccgcctcgg | cctcccaaag | 20580 |
| tgctgggatt | acaggcgtga | gccaccgcgc | ccggccaaga | atcatcattt | gctttaaaag | 20640 |
| aacaagatta | cattgtattt | atttactata | acctcatcta | aaatatcagt | gcttaaagat | 20700 |
| ccttctcacc | ctgtctgaacc | ttatcagact | atatgttttg | taattttttat | gctaaggata | 20760 |
| aaagatccaa | ataaaaactt | gtcaaagtag | attgtgtctt | ttatagcagc | atcacacagt | 20820 |
| gctttacaac | attagcctgt | gatggaaaatg | agcaggtaac | tgtagtatct | ccatcttata | 20880 |
| ttgcaaaaaa | caagagcaga | gatgttaaatt | aacctgcctta | agtcacatgg | ctagtaactg | 20940 |
| gtgaagccag | acctagaatt | aagtttctgt | tactgctagt | ttagtctctt | tatgatgtca | 21000 |
| gactaaatct | gcatagggtt | aaagtaaaaag | tggtgtcaca | acccatagaa | agaaaagattt | 21060 |
| ttctcttate | tcagattcct | aagcggggaca | tttacctgct | ctgcaaagta | gattgggtata | 21120 |
| tcaaatatgc | ctctcaagta | atatcatagt | gttggttaatt | aataagtttt | taatgttggt | 21180 |
| tgaaatatta | actataatca | gatataatga | ttagtagcca | tgtgatatta | aatgctttttt | 21240 |
| aatagcgata | agttttgcat | ggatcctgat | gtctacttta | gtataaatga | tttaataaat | 21300 |
| caattgacac | aattttgcctc | acatttctatt | atgtatatatt | cttcatagga | tccattcttg | 21360 |
| aacagaatga | agaagccact | gcaccttttg | gattgtatac | atgtattatt | gataagatat | 21420 |
| gttgagaatc | ccagccaagt | tttaaatgtg | gaaagggtact | tatgaattaa | atattggatc | 21480 |
| agcaaaaagct | tttaaatgct | tctaataaat | acctgggttaa | aaaatttgaa | gagaagatgg | 21540 |
| gaagattctt | gtgtatatta | gcaataacta | tttgaatgat | attgatcacc | atgtatgaaa | 21600 |
| aataggagtt | ttttccattt | tcaacccttg | tcctaaatcc | tttctacagc | tgaacataca | 21660 |
| taatgtatct | atttcttcta | cttttagatta | gtgatctagg | accaaacaat | ttcaattatg | 21720 |
| tctttgtgat | atttattggc | atttaaggga | tattcttttg | aaaaagaata | ttagcaggaa | 21780 |
| tcattctctta | ctgctttctt | ctcattgttaa | aaatcttcag | gccaggcgtg | gtggctcaca | 21840 |
| cctgtaatcc | cagcactttg | ggaggctgag | atgggcggat | catgagggtca | agagatcgag | 21900 |
| accatcctgg | ctaacacgtg | aaaccccatc | tctactaaaa | atacaaaaaa | attagctggg | 21960 |
| cgtgggtggcg | ggcacctgta | gtcccagcta | cacgggaggc | tgaggcagga | gaatggcgtg | 22020 |
| aaccaggag | gcagagggtg | cagtgcgcgc | agatggcgcc | actgcactgc | agcctgagtg | 22080 |
| acagagcgag | actccgtctc | aaaaaaaaaa | aaaaaatctt | caaattggaac | ccacctacac | 22140 |
| ccaagttttt | ttttttactt | tatttcttat | ttacttaate | acatggtctt | tcctctcctg | 22200 |
| tgagaattaa | agttgccaga | agttgggtgg | gaagaagtcc | tgcaggagga | aatgtttgta | 22260 |
| aatgtataat | taatcatgtg | tctttttcgt | tgtaggagaa | gatttacaaa | tctctgcctg | 22320 |
| gatgctgttt | gtggttacct | tggttgagctc | cagtcctatga | gctcgtcagt | agcagtcaca | 22380 |
| gccatcactg | ggaatttttaa | atctcttcaa | gctaaattag | aacggcttca | tttaattactg | 22440 |
| tgatatactt | tcatccgttt | tatgatctgt | aaaataaaaa | ctcagctggg | tccagatata | 22500 |
| aggtgttcta | aatctaagaa | tgtaagaaca | atcttaatat | aaatatgttt | ttaataagtg | 22560 |
| gctaatatct | acaaatagta | cctttgctaa | atgaattctt | ttttatgact | attttggttt | 22620 |
| ttagtaattg | ggtgaaaaaa | caactgaaat | gagattattt | attatttttaa | cataaggatt | 22680 |
| aaaaaaattt | agaaactctt | attttgtaatt | gtactgcagg | cagaaatttc | gaattttatat | 22740 |
| tattcatttt | caagttagtc | caaggatatt | ggcattaaaa | ctccactagg | cggccaggga | 22800 |
| cagtgcactta | cacctgtaat | cccagcactt | ggggaggcca | aggtggggcga | atcacgaggc | 22860 |
| caagagtttg | agaccaacct | ggccaacatg | gtgaaacccc | atctctacta | aaaatacaaa | 22920 |
| aaaaaatagc | caggcgtggg | ggcggggcgcc | tgtaatccca | gctactcggg | aggctgaggg | 22980 |
| aggcgaatca | cttgaacccg | ggaggcagag | gtttcagtga | gtcaaaatcg | caccattgca | 23040 |
| ctccagccca | ggcaacaggg | cgagactctg | tctcaaaaaa | caaaaaaac | tcaaataggc | 23100 |
| taagcagatc | cattcccata | atagtggatt | ctaaaaccgt | ccttaaatag | gcaaataact | 23160 |
| gactttttca | aaactttttt | taggtgttg | gttcaccctt | gaaagaactg | tcctctaaca | 23220 |
| actggttttg | tcagttaaaag | cccttgagaa | ttgacatagc | tatatacctg | gttgagcagg | 23280 |
| tgataaaact | tgtaactaat | gttgtgtcct | gaaaacctac | acagggaggt | actgttttcc | 23340 |
| cttagtgtct | acctggctgc | ttggccttgt | gactactgat | tccattagag | cagtgtttct | 23400 |
| caaagtatgt | gctccaaacc | agaagcatca | gcatacagcat | cagcatcacc | taggaatttg | 23460 |
| ttagaaatgc | aaattctcga | gccccaaacc | agacctactg | aatcaaaaaac | gtgggggatg | 23520 |
| aggccctgct | ttctatgttt | taacaagctc | tccaggagat | tttggtgcat | gtcaaatttg | 23580 |

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-------|
| aaagccactg | cagtaaagga | tactgctacc | ttccatagtt | tatggactga | gctacctatc | 23640 |
| tggctcctcc | tctgtgaata | accacacaca | caaattttgc | ccaaggcaca | caatatataa | 23700 |
| agcaaaactg | ttagtaaatg | actttttta | tattccttaa | caaaatagaa | taaccaaaacc | 23760 |
| aaatgcttca | aagtaaatagc | aacaagagag | aagaagagtg | ggaatgacca | gagctaacaa | 23820 |
| aacactctat | tcctttctct | cttttttttt | tttttggaga | cagaatctca | ccctgtagcc | 23880 |
| cagcctggag | tgcagtgggtg | cgatcccggc | tcactgcaac | ctctgcctca | caggtttgaa | 23940 |
| gcaatttgcc | tgcctcagcc | tctcgagtag | ctgggattgc | aggtgtgcgc | caccataccc | 24000 |
| agctaatttt | tgtattttta | gtagagatgg | gtttcaccat | gttggccagg | ctggctctga | 24060 |
| actcctgacc | tcaagtgatc | tgcccgcctc | cacctcccaa | agtgttgaga | ttacagacgt | 24120 |
| gagccaatgt | gcctggccta | ttccctttct | tctttatgct | accacaaata | attaccttct | 24180 |
| gtttattgta | agtgatgcat | gtctaacaat | ttgtacaata | cattttgaat | atatttttcc | 24240 |
| ttccattatt | gtcttttccc | aagaccatag | ggttgccttc | tctacatttg | ttctcttaga | 24300 |
| attcagctcc | cttttcccta | taatcttcta | atgtagaata | tttaatagaa | tgccagaacg | 24360 |
| tcactcagtg | ggtactacta | cctcttattt | ttcaactttt | cagtttctta | agtttagcgt | 24420 |
| tttttgaata | tgtaaagtga | atgtatgcga | tacattaatt | cgttttataa | atttaaa | 24477 |

<210> 12095
 <211> 5848
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| <400> 12095 | | | | | | |
| tgtagatcaa | ctgaggcatc | tactttgtgag | taatgtggga | ggagatggag | aagagattga | 60 |
| aagattcttt | aaattacatc | aggttaattat | atatactttt | aaaaaatgtg | atgctatttt | 120 |
| aaacaaacag | tgggagtcac | agtttatgta | aattgggact | ggaatactgt | aataaatata | 180 |
| tatatatatt | ttgagatgga | gtttcactct | tgttgcccag | gcaggagtgc | aatggcgcaa | 240 |
| tcttggctca | ctgcaacctc | tgccctctcag | gttcaaata | ttgttctgcc | tcagcctccc | 300 |
| cagtagctgg | gattacaggc | atgtgccagc | actcccaact | aattttgtat | tttttagtaga | 360 |
| gacagatgtt | ctccatggtg | gtcaggctgg | tctcgaactc | ccgacctcag | gtgatccgcc | 420 |
| cacctcgccc | tcctaaagtg | ctgggattac | aggccgtgag | ccaccaagcc | cagccataaa | 480 |
| tagataatct | taacaatatt | cctttctttg | cctaagtcac | tgtatgtgaa | ctgacatttg | 540 |
| aaagcaggat | taatatgagt | cttgtagtga | gctttcagat | ttttattctc | tgttgttgat | 600 |
| aaattctttt | ttttttttga | gacagagtct | cgctctgccg | cccaggctag | agtgcagtgg | 660 |
| cgtgatctcg | gctcactcta | agctccacct | cccagggtca | ttccattctc | ctgcctcagc | 720 |
| ctcccaagta | gctgggacta | caggaccccc | ccaccacgcc | tggttaattt | tttgattttt | 780 |
| tagtagagat | ggggtttcat | catgttagcc | aggatggtct | cgatctcctg | acctcatgat | 840 |
| ccaccgcct | cggcctgcca | aagtgtctgg | attacaggcg | tgagccacca | tgccctggcct | 900 |
| gttggtgata | aattcttatt | gaagtctgtc | agtaagagtt | tcttgttcag | gttatatgat | 960 |
| aaatgccttt | tcattaaaag | cacaagacat | ttagggacaa | gttggtttttg | gtttgtttgt | 1020 |
| ttgtttgttt | gtttgttttg | gcttaatgac | ctgaggaaga | aacctgaggc | aacagtgtag | 1080 |
| agatcttagt | atttcagagc | cacaactgga | attgatacgg | ttaaaattgg | gagtagttca | 1140 |
| aagttaagta | tacagactct | ggattcaaag | cacctgtgtt | aaaaatccca | gctccaccac | 1200 |
| tgaggtaaat | tacttgactt | ctctgggctt | cagtttcctt | atacattata | ataggatgtg | 1260 |
| gtatgaggat | taatatatgc | taaactctta | aaatagtacc | tgacacatgg | taggtattca | 1320 |
| gtgttaccac | tttaattgta | ttttctagaa | agcagaaaga | ccacaggaag | aaaattggag | 1380 |
| acataagccg | gaaactaagt | cagaatctag | gttaaaaagga | aaagagaaca | tcctgtaatc | 1440 |
| ctagtgccta | tgatgaactt | aaaaccagta | gtgtttactt | gtctttttta | cactaactga | 1500 |
| tttcattcag | tcagcaagta | tttattgaa | gcctgctctg | tgctagatac | agactttaat | 1560 |
| actgcatcta | gcagtacaca | aatcattttta | aaatttgtat | ttaatataag | gccaatattc | 1620 |
| ctctttttac | acaggaagac | caggcttgtg | caacttgccct | tattcttgct | tgctccactg | 1680 |
| ctgcctgtga | tagagaagta | tctgcctggg | ctactcgggc | tttctttagg | tatgtgaaag | 1740 |
| tttttcttgt | ttattttatt | gtttttttac | tgggccactt | tttaaaatga | ttttatcaat | 1800 |
| gtgataaagc | cttgccaaac | agtttgagtga | ctatgtaggc | aaattaccaa | aattcatttg | 1860 |
| caaaaggggtg | aaatctggag | agattataat | ggtaatagaa | gcaagtaaat | tagcatagtt | 1920 |
| tatgcattat | tactttaact | ctggattctg | ttctgtaact | tcttgtctac | tttctacact | 1980 |
| ttgttctacc | tcagttactg | tctcatctat | cttttttact | tcccaaaca | ctatgccaat | 2040 |
| tctgcttaat | atgtatcatt | agtattgaag | gcttctgaat | tactttaagg | aaacttggtg | 2100 |
| ccaaagagat | atttctattt | agaaaatatt | taagaatttg | aaatgtgatt | ttgttagaaa | 2160 |
| cgttttttga | agtactatct | aaccataacc | tagtatgaaa | attacaatgc | catttactca | 2220 |
| caaagtaaat | tctatgcatt | gcatactctt | ttcttagaag | ttatcagagt | cccttataat | 2280 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tcttcctggt | agcagtttca | agtccacatt | tactgaataa | atattttatta | taagtcttat | 2340 |
| gcatatactt | tactgtcagc | acaatacatt | gaagtctcta | atgttttaaag | cattttacttg | 2400 |
| gaagctaaac | aggaaaagga | acaattccag | tttttaagat | ggatggtttg | ttttactgaa | 2460 |
| taaaactcaac | ctcttgtcat | aaaaataggt | atgggtgggga | agcacagatg | agattttccaa | 2520 |
| ccactcttcc | gcctccaagt | aatggttggg | ccatcttggg | gtctcctgtc | tattctagtg | 2580 |
| agtatggaac | attgaaatga | aattgtttct | aatcgtttga | atcttagaac | ctttatagca | 2640 |
| atttttatca | ataagccttt | tcattatggt | ttattttactg | ctattgtata | attgatgaat | 2700 |
| acatctatag | attctgattc | ttaaaagtga | tctattaata | ttgaatcctt | aatgtaagga | 2760 |
| agcaaaataa | gatgtaacca | atcatattta | cataactcat | ttggtatata | ttcagaggga | 2820 |
| aacagatgaa | tgattttaata | attaactcgc | acatcagtg | ttccaaggt | gggagttgtt | 2880 |
| agaaacttac | taggagatca | gtccctaatt | cttgcatata | tcgtggacaa | tgtaactcct | 2940 |
| tatgcttaga | aatagcttct | gtggccaggc | acaatggctc | acacctgtaa | tcccaggact | 3000 |
| ttgggaggcc | gaggcgggca | gatcacctga | ggttgggagt | ttgagactag | cctgaccaat | 3060 |
| atggtgaaac | catgtctcta | ctaaaagtac | aaaaagtagc | cggcctgtgg | tggtgtgagc | 3120 |
| ctgtaatccc | agctactcag | gaggctgaga | cgggagaaatc | gcttgaacct | gggagacaga | 3180 |
| ggttgcagtg | agccgagatc | atgccactgc | actccagcct | gggccacaga | aagagaccct | 3240 |
| gcctcaaaaa | aagaaaaagg | aaataccttc | tttacctaata | tttgatcaca | ttcaaaaagat | 3300 |
| tgagatgttc | ttttctaaat | cttttatattc | ttctttccct | ttttaggttc | tcctgttcct | 3360 |
| agtggtagtc | cctatccaaa | tccatccttt | ttgggaacac | cgtctcatgg | tacctctttt | 3420 |
| ctttgttttg | gatttgattc | attttgaagt | gctaacatta | tgagttaacc | ttaatgctta | 3480 |
| gtgtgaaaaa | gatgaacttg | ccttattccc | ttgaaaataa | atataatttt | agaagcgctg | 3540 |
| tccaagcaag | ttttggcatt | tggatgtgaa | tgcctttatt | taggaggaac | tcctcttata | 3600 |
| ataagcctgg | aaagcccatt | atttggctac | caggattaaa | ttgaacctta | aaatctgtgt | 3660 |
| aatcagttct | attttactgt | cagcattaca | agcagtagctg | gcaagtttgt | ttccttttca | 3720 |
| ttctgcattg | tgaacacttg | caagtctatc | tgggagtagc | catccacatt | taaatctctc | 3780 |
| ttcttattaa | ggaaaaccaa | gttaaataatc | tatgtatttc | attgtttttg | taaatacctt | 3840 |
| tgtgtctaga | tacacaaact | tgggttatga | gaattctgaa | ttttatgggt | tctaagatta | 3900 |
| agagatttat | gggttctaag | attaagatta | agagatttat | gggttctaag | attaagatta | 3960 |
| agagatttgt | ttttcttatg | tgtgtacaag | gtatacagcc | tcctgccatg | tcaactccag | 4020 |
| tgtgtgctct | gggaaaccca | gcaactcagg | ccacaaatat | gagttgtgtg | actggaccag | 4080 |
| agatttgtga | ctctggaaaa | cacaatggta | tttgcatatta | cttttctcgg | atcatggggg | 4140 |
| aagtttgtca | tgaataaatg | aattattgct | caccttgctc | catcttgagt | agttaaatat | 4200 |
| ttttaactct | gaatttggga | catcatttat | tcctattaaa | ttttagtttt | agctcacttg | 4260 |
| ttgatcaata | aaacttttct | attattccag | tttttgttat | ctaactatat | tcattgctgt | 4320 |
| gttttatttc | tcttactctc | tcataatcta | tttttgtagc | atcaaaaatac | agttgttcct | 4380 |
| taacacaggg | gttaggggat | gccaaccacc | attcctcaac | cttcatgtag | tcaaaaattc | 4440 |
| atgtacaact | tttgactttc | ttaattacta | atagcctact | gtctagaagc | ctcactgata | 4500 |
| agtaatcaat | taacacgttt | tgtatgtttt | ttgtgttttc | tttttttaac | ttttgcatgg | 4560 |
| tgtagtagta | tgggggagtc | tcgtaaaaac | cagaaaacct | gctagacaaa | ttctaaaaca | 4620 |
| gccgtaaac | tgatattttg | tgtcatatgt | gttatacact | atattcttac | cataaagtaa | 4680 |
| gctagagaaa | aaaaatthaag | aaaatcataa | ggaagagaaa | atataattac | tattcattaa | 4740 |
| gtggcaatgg | atcatcataa | aagtcttcat | ccttgtcttc | acgctgagta | ggctgaggag | 4800 |
| taggaagagg | aagggttggt | tttgatgtgc | tggggtagca | taggtgggaa | aaaaatctgt | 4860 |
| gtataagtgg | accacacaa | ttcaagccca | tattgttcaa | agggtcaactg | tatatctact | 4920 |
| tacatatgaa | tgtacagtg | tacaaaacttc | cccataactc | agtacatgt | gtctacagtt | 4980 |
| caacagggga | gttcttgtct | tgtctgggcta | actcaagaat | aggcaatcag | ttgtgaagtt | 5040 |
| aaagagagct | atgctttatct | tggctagact | gtcacatggt | caaggttata | ttttccagct | 5100 |
| ggtctagaat | ggcccaagat | gaaacagctt | ggttgttctc | tacatgggtt | ctcatcccc | 5160 |
| agcaggccag | ccaaagatta | tttagttggt | tgtggcagag | ttccttgaga | aagagtagac | 5220 |
| acttgcaaaa | cctttattct | aaactcagaa | ctggccttacc | atgcactttt | cgccttatt | 5280 |
| cacttgcca | gagggaagtc | acagggccaa | ctcagattta | aaaggtggga | aatagaccac | 5340 |
| cttttagggg | agagacatca | aatcatactg | cagaggggat | agatataggg | agggataaag | 5400 |
| aatgtgtgtt | gtttttgcaa | tcagtctatc | atgttatctt | agttagctat | catgcctaata | 5460 |
| atatatttct | cttagatttg | agatgtatga | tttcattcat | ctcatttgct | taaaagtatg | 5520 |
| aaacagtaca | gagccccttt | ataaatttcc | tgtttacaat | ttattataca | gagccttttg | 5580 |
| atttttcttc | agtaaatattt | cattatctga | aaaacttagg | tacatcaggt | atgaaaattt | 5640 |
| tctagtattc | cactcttcta | gatagcttag | taaaatgta | aatgaaacca | ctgcaagttt | 5700 |
| taaaaactga | ataaagccat | taagttccta | gagaaagaaa | tttattgtaa | ttgtttttat | 5760 |
| tcattttacag | cacaatcatt | aaaacttttt | tttttccaga | aacatttggg | atgcaagctt | 5820 |
| agttgtggag | agaatattca | agagtggc | | | | 5848 |

<210> 12096
<211> 595
<212> DNA
<213> Homo sapiens

<400> 12096
aaaagatctc actctgtttgc ccagactgct ctcaaaactc ctggccttaa gtgattcccc 60
tgcctcagtc tcccaaagtgc ctgggattat aggcattgagc caccatgcct gtccattatt 120
tctttatagt gactattata tgtaggcaat gtataattgg tagaacatag tctatgaaac 180
agtgcgttaa ttgtgggcag tgaagaatca ttgaagtgtg gaaatttgta ttttaactag 240
atcattgtat tatggcaaaa cggttaggaa agagaaaagct atcttgacta actacgctat 300
gagatactga ctgactgtaca tgtacattta gtgtttcttt aggtatacct gacttattca 360
ttgaacacct atccactgat ctcaaaagta ttcctcaggg tagtctccat tcctgtcatt 420
tttctctcta ttcattgagac ggaaaaatta tgaccatggg acagagtgtg atcaaggaaa 480
tgaagaacta gaacattgaa ttgaaagggt ttgaaagggt tcacaatttc ttttcatttt 540
ctattaatgt cttctttttaa attctcttaa gaataaaact tttttctaata atttt 595

<210> 12097
<211> 599
<212> DNA
<213> Homo sapiens

<400> 12097
aaaagatctc actctgtttgc ccagactgct ctcaaaactc ctggccttaa gtgattcccc 60
tgcctcagtc tcccaaagtgc ctgggattat aggcattgagc caccatgcct gtccattatt 120
tctttatagt gactattata tgtaggcaat gtataattgg tagaacatag tctatgaaac 180
agtgcgttaa ttgtgggcag tgaagaatca ttgaagtgtg gaaatttgta ttttaactag 240
atcattgtat tatggcaaaa cggttaggaa agagaaaagct atcttgacta actgtttatg 300
ctatgagata ctgactgtatg tacatgtaca tttagtgttt cttaggtat acctgactta 360
ttcattgaac acctatccac tgatctcaaa agtattcttc agggtagtct ccattcctgt 420
catttttctc cctattcatg agacggaaaa attatgacca tgggtacagag ttgtatcaag 480
gaaatgaaga actagaacat tgaattgaaa gggtttgaaa gggttcacaa tttcttttca 540
ttttctatta atgtcttctt ttaaattctc ttaagaataa aacttttttc taatatattt 599

<210> 12098
<211> 5872
<212> DNA
<213> Homo sapiens

<400> 12098
atactggagt gtttctctca cactggaaag aggtgagtc tatcattgtg attggtgttt 60
taagtatatt tttattgtta ttttaaattg cattcaagtt tagcttcaag ttcaacagca 120
gtcttagcct acttctctcc acacaaatac tctgcccagt aaataggcac tcttaaataa 180
aacagtgcct gcaagaacct tctgacccat tgaaattagt cttgccctgt cttcagagggt 240
gtattcgtcc ctctctgggt gtagagcggg atttaagggt gacactcggg cacgcaggag 300
gtgtggcagg gggcggggaa tgcaagggtca ctgtggctca gggcggggtg tgggtgcagg 360
cgcgttggga ggacctggg cgccttgga agtcgcaggg caggcggcag ggctggcggg 420
cagcagtgtc ggcttccgac gtgaggtggg gacggcgggc cctgcgcca ggccctgtgc 480
tgccgaccgc tgcctgggt ggcagctcc ccagcaggcg ccgggctcag gtcgcgcctt 540
cagttagcgc tcagcctgcg ctactgcgtc tctccgctt gcgatttctg gtcggatccc 600
agctggccca gacttgctct gaagtaggag gaaccgctgt cgagcgaaaa gtgcacaccg 660
ggtgattgat gaactcttaa tagaactaac ctctcctgcc ccaacccta gacacacaca 720
gagaaaacct ccacccagc ccttcttca gtctctctcg cggcgagag gggacgcggc 780
cgccagccgg tagggtgatt aactcacctg ctgtctttgc aaaagtgttc cagggtggatc 840
aggagcgcca gccaccccg cccgcagcct ggccgctcgc tgaggcgcg agagcgcgga 900
acgagcgcg gcattcacgt gggcgcgga cgtttgtgcc gcgcgcccgc cagaccgccc 960
aggagcgcg ggctattgtt cccgcaggg gcccgggcg ccctgaaacg ggggtccacgt 1020
cagccgcgtc ccgagcgtgt cctcaggctt aaggacgggt ggggcttctt ttgtgtgttc 1080

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| tctggaaggg | gctgggatgg | cgctgttgct | gccccaaagg | gtaaccgagg | gggattgagg | 1140 |
| gaagatggta | ccagctccct | agagctcagc | tcaccagacc | tactcttccg | ctcgaccctt | 1200 |
| gcagaggagg | tggggacgga | tatgggtattt | gtagggcagc | gctgtgaaca | atggagccat | 1260 |
| caaaaaggcc | ttctcccagc | ctcctcacca | accacggaca | ttcctggccc | aacaagacct | 1320 |
| cctggccagg | ttttgagccc | tgcttcccag | gtaaaaacac | tgccgtgacc | agagctctcc | 1380 |
| atgaattttg | gtttaaatta | ggattttaaat | tcttctggcc | cttactaatg | ttaaaaccca | 1440 |
| gcttttatga | tttctccagg | tagtattctt | tccttaaaat | aatccagact | agctatagga | 1500 |
| accaatcagg | acattttgcc | caagatctag | gacagaaaga | ctcatgcagt | aactcctgcc | 1560 |
| ttacagatct | ggggaccctt | cacctgcctc | tactactgca | aatgattgga | tattcgtctg | 1620 |
| acttggctct | tccttaaatg | gtggaactaa | ttttgttcac | tctgtttcat | gctggacctg | 1680 |
| gcctgaaaa | gggcccttat | attgtctttg | cactttccaa | cttgccaagg | taggtgtgaa | 1740 |
| acctgagggg | agtttttagg | aataggcttt | aggccaggta | cttaaatcca | tttgttccca | 1800 |
| accttggact | ccaaagataa | gggcatttgt | agctggagta | gaaaagaagg | gaacaatgag | 1860 |
| aactaagatt | tcctcctctg | tgatgattct | tatcattcac | cgctcttcc | ctccagcatc | 1920 |
| accagtgcag | aaagtgcaga | ggacttatgt | acccaatcct | tttttttttt | tttttttttt | 1980 |
| tttgagatag | agtttctact | ttgatgccc | ggctggagtg | caatggtgtg | atctcagctc | 2040 |
| actgcaacct | tgccctccag | gtacaaacga | ttctcctgtc | tcagcctccc | aatataacca | 2100 |
| atctttctcc | tttctatcca | ggccttctgc | aagagagatc | taagaaccag | ccctcaaaga | 2160 |
| tggttaaggg | ttggctagtg | acagcccagt | ctcagctccc | tgtgcccaaa | gtgtcggaac | 2220 |
| agggccactc | aacccaagcc | ctacatatat | actctgggaa | gttgcaagtgc | ctcgaagtga | 2280 |
| tcaggccata | gtcctgtgaa | gactgggggt | atccatgtcc | cttcctgcct | actcacaac | 2340 |
| ttctgttctt | cttattcttt | tctttcagtt | tctgaaagaa | ggaccaaagt | aatgccaaga | 2400 |
| actccagat | gaagaggacc | ttccttagac | ctataacaga | ttcactactt | gacttcagag | 2460 |
| ggaagtttca | gctaattctc | aggaaaaggt | caaaacaggc | ctgtgactgt | cccttgaata | 2520 |
| ctgaagggtat | aaacaagctt | ctggctcctc | caggtcaagc | agaggaacac | ttttattaga | 2580 |
| atgaaggggt | acttctttgt | tattcaaaca | cacaccaca | cacatcctct | gtagtctccc | 2640 |
| taatgaaaaa | cctcaacaga | tggagagcct | gagctcccaa | gtccgcaggc | tgagaagatg | 2700 |
| cacttctact | aagggccagt | gggctgggtac | agactagggg | agagaaaagg | gacaaaaggct | 2760 |
| gctagtatat | gtaatcacta | tcttttaata | ctcctaacac | atagaaattc | gaaaaatcct | 2820 |
| gttcagcaat | gttagcagcc | tgtgagcctc | ggaaactaat | ttggctgatg | tgtctctgat | 2880 |
| agggagcttg | gggctgcacc | aaggggaac | attctcctcc | tgtattctct | cctctctctc | 2940 |
| gtttgaaagc | ctgtacaaag | aaatggtaga | aatggatggg | taacttaatg | attccatcag | 3000 |
| aggcagattt | ttctctgtca | ggctccctgga | taagggtggg | gtctgaaagc | caggagacag | 3060 |
| aatatgtact | taatcgccct | ttctgacctg | cttaccagtg | accaggacta | ctctccaggc | 3120 |
| ctttcttctg | ccacttcccc | attcttctct | gctagtctcag | ttgggtctca | gcacttcaac | 3180 |
| tcttggtctg | atcctgagtt | tttcttgggt | gcagggaaag | ctctcactgt | ctgcatctcc | 3240 |
| ttccccaccc | ccacctcccg | ttttgcagct | ggccattctg | gctgcctcac | agctatcctg | 3300 |
| ccttaattca | tatttgattg | cctggacaga | accacctaga | atgtccagac | gactgccacc | 3360 |
| cctcagccat | gggcctgaga | tcttgccctg | accccttctt | tcagacccca | ggaggaccca | 3420 |
| caatctccct | gatccccacc | ttccccaaag | tagtctctag | gaaaaaagca | gagctggcta | 3480 |
| aggcctgaga | cagagccatt | tcttccccct | gggcaaacga | ggtagaccct | cccagagacc | 3540 |
| aatgccggag | aggcccggt | ccgagctccc | tttatatggc | ctcccccatc | acggatcccc | 3600 |
| tgggaaaacc | tgacacacaa | tggcgcggt | gctccgggca | ccctcaaccc | agcgccctgc | 3660 |
| ggcaaggcct | ggagcagcct | ggtgggtctt | gtgcgtctcc | tttgccctcc | ccgcaaccct | 3720 |
| ctgcgagcac | tcgtcccagg | agagagaccc | tggctagggg | ggaggttgcc | tcccgcaaag | 3780 |
| ggcgctgttg | ctggggcctc | ccctccccca | ttctcttgtt | tttctgcttc | tgagactcgg | 3840 |
| gagggaggcg | gcaggcgctt | ccgcagccga | tagagcagct | attgtgacct | tccttgcag | 3900 |
| agcgggaacc | cagccgagtg | tgtaccgcgc | gcgggtggcg | gggaggaggc | gactgtgtgt | 3960 |
| gcaaacctca | gtcggagagg | gggtggcgct | gggaaataaa | ggtttgcaac | ctcaggcagt | 4020 |
| tgggcccctt | agagggcggt | tgggtgtgtt | tagactcggt | tgctttctaa | cactaattgc | 4080 |
| aggctcaaaa | ggagcggaat | ttattgcgaa | ggccaaggcg | gcttgtttat | aatttatgaa | 4140 |
| gttttaaatg | gctgtgccgc | gggccccaac | tttctcctgg | gctggcagcc | gcgcggaaac | 4200 |
| gcgcctctcc | ccggctcgcc | gcccaccccc | accacgccc | ctcagatgag | tctcacgcca | 4260 |
| atggcaggaa | cagatccgag | ctattagaag | tctcggaac | ctccagagat | gacagaagggt | 4320 |
| ggcagatttg | gtccaagccc | tcacccact | cgagaggagg | gcgtcgggga | aagctgtggc | 4380 |
| tgcttgagga | gggagccct | gatcccacac | ttccttggag | cctgagtgtg | agaggaagct | 4440 |
| aatgtcagcc | gggttagaca | ccgtttaaag | tctaaccat | gaaaccctaa | gccgcaaagt | 4500 |
| acacttgggg | ctttgcagac | acccgcagac | ctcagagata | ctcctgcggt | aacacactgt | 4560 |
| gctggaaaac | gcctggagcc | atgacacatt | acgtattttt | attattattt | atggtaggaa | 4620 |
| gaggagatga | gggaaaatcg | ggctgaatct | aagcagcctg | acaattcagc | tagttaatat | 4680 |
| ttagccagtt | aagaaagggt | gttgtaatcc | ctgcaaggca | gtgagctctc | ctttgatttc | 4740 |

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|------|
| tctaatagct | taaaaaataa | tttcttacaa | gacaattaga | aattctgcct | atggatgcaa | 4800 |
| atctcataga | aaacaatggt | aagccttgaa | agtgggtaaa | atgtgccttc | gattgaagtc | 4860 |
| atctattctg | ttgatacact | tctacaacat | atatatttta | aacctgctca | gataaagtga | 4920 |
| aatttagcaa | aaggatatcc | cctcccaccc | ccaaatctaa | catgccattt | taaaaacagc | 4980 |
| acaaaggaac | aaggaaacta | aatattatct | tgagccatca | ttacttagtg | aaatacaaac | 5040 |
| atccaaatag | aaacgattgt | tggtccacca | gaagattaga | agttaaatta | tttccacaca | 5100 |
| ataggaatct | cacttcgtgt | catcggggat | gtagtaggag | ttgcattatt | tgtcaaacca | 5160 |
| aatagagatg | cgtgggctga | ctttgctgaa | atacaaaaga | attgaacctt | atctgaaggc | 5220 |
| gttttctaag | tggtccctcc | catagaagcc | gggaagttgt | ccacccttag | cagaagccac | 5280 |
| attaatattt | acaaaatggt | tataaatcct | tgaagacatt | tttgccctatt | ttgtataaga | 5340 |
| aacaggagta | aacaagggtg | ttataactgt | tatgtttcat | taatgaaata | ttattacttt | 5400 |
| acatcttggg | gaatgtttgt | tttctttaga | aatgaactaa | tgatcactac | aaaggaagaa | 5460 |
| ttcatgacag | catttcctag | agaaaaagct | taggtacgag | tctccaaatg | atggtttctt | 5520 |
| tttctacacc | ttagcttttt | catagctcaa | ttcttcttac | aacttctctt | gtgttttttc | 5580 |
| tttgattgtc | agttttcttt | caaagtttat | tttttgttac | ttaatgcaga | aaagtgcagc | 5640 |
| ctggtctccc | cagtgtaaaa | gtcgattgtg | tctagaaaga | aggcagtaaa | aacagcaaag | 5700 |
| caggcgctgc | tttcaaaaag | ccctgcccac | atcatccgcg | ccagaacctt | cttaggtttg | 5760 |
| catcctcatt | ttcccctccc | ctaatttcaa | tagctggaaa | gtaatcaagt | atcccgagaa | 5820 |
| ccaatttatg | cactagactc | caaataaata | aatatttttt | ttcaaagtgt | ca | 5872 |

<210> 12099
<211> 4754
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (99)
<223> n equals a,t,g, or c

| | | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|-------------|------|
| <400> 12099 | ggtaaccgag | ggggattgag | ggaagatggt | accagctccc | tagagctcag | ctcaccagac | 60 |
| | ctactcttcc | gctaagaccc | ttgcagagga | ggtggggang | gatatgggtat | ttgtaggggca | 120 |
| | gcgctgtgaa | caatggagcc | atcaaaaagg | ccttctccca | gcctcctcac | caaccacgga | 180 |
| | cattcctggc | ccaacaagac | ctcctggcca | ggttttgagc | cctgcttccc | aggtaaaaac | 240 |
| | actgcctgta | ccagagctct | ccatgaattt | tggttttaaat | taggatttaa | attcttctgg | 300 |
| | cccttactaa | tgttaaaacc | cagcttttat | gatttctcca | ggtagtatct | tttctttaa | 360 |
| | ataatccaga | ctagctatag | gaaccaatca | ggacattttg | cccaagatct | aggacagaaa | 420 |
| | gactcatgca | gtaactcctg | ccttacagat | ctggggaccc | ttcacctgcc | tctactactg | 480 |
| | caaattgattg | gatattcgct | tgacttggct | cttccctaata | gtgtggaaact | aattttggtc | 540 |
| | actctgtttc | atgctggacc | tggtcctgaa | atggggccctt | atattgtctt | tgcactttcc | 600 |
| | aacttgccaa | ggtaggtgtg | aaacctgagg | gaagttttta | ggaataggct | ttaggccagg | 660 |
| | tacttaaatc | catttggttc | caaccttgga | ctccaaagat | aagggcattt | gtagctggag | 720 |
| | tagaaaagaa | gggaacaatg | agaactaaga | tttcatcctc | tgtgatgatt | cttatcattc | 780 |
| | accgtccttc | ctctccagca | tcaccagtgc | agaaagtgca | gaggacttat | gtacccaatc | 840 |
| | tttttttttt | tttttttttt | tttttgagat | agagtttcat | tcttgatgcc | caggctggag | 900 |
| | tgcaatgggtg | tgatctcagc | tcactgcaac | cctgcctccc | aggtacaaac | gattctcctg | 960 |
| | tctcagcctc | ccaatatacc | caatctttct | cctttctatc | caggccttct | gcaagagaga | 1020 |
| | tctaagaacc | agccctcaaa | gatggtaagg | gcttggttag | tgacagccca | gtctcagctc | 1080 |
| | cctgtgccc | aagtgtcgga | acagggccac | tcaacccaag | ccctacatat | atactctggg | 1140 |
| | aagttgcagt | gcctcgaagt | gatcaggcca | tagtctgtgt | aagactgggg | tcatccatgt | 1200 |
| | cccttctctg | ctactcacia | acttctgttc | ttcctattct | tttctttcag | tttctgaaag | 1260 |
| | aaggaccaaa | gtaatgccaa | gaactcccag | atgaagagga | ccttccttag | acctataaca | 1320 |
| | gattcactac | ttgacttcag | agggaagttt | cagctaattc | tcaggaaaag | gtcaaaacag | 1380 |
| | gcctgtgact | gtcccttgaa | tactgaaggt | ataaacaagc | ttctggctcc | tccaggtcaa | 1440 |
| | gcagaggaaac | acttttatta | gaatgaagg | ttacttcttt | gttattcaaa | cacacacca | 1500 |
| | cacacatcct | ctgtagtctc | cctaataaaa | aacctcaaca | gatggagagc | ctgagctccc | 1560 |
| | aagtcgcgag | gctgagaaga | tgcaattcac | tcaagggcca | gtgggctggg | acagactagg | 1620 |
| | gaagagaaaa | gggacaaagg | ctgctagtat | aggtaatcac | tatcttttaa | tactcctaac | 1680 |
| | acatagaaat | tcgaaaaaat | ttgttcagca | atgttagcag | cctgtgagcc | tcggaaacta | 1740 |

| | | | | | | |
|------------|-------------|-------------|------------|-------------|-------------|------|
| atttggtga | tgtgtctctg | atagggagct | tggggctgca | ccaaggggaa | acattctcct | 1800 |
| cctgtattct | ctcctctctc | tcgtttgaaa | gcctgtacaa | agaaatggta | caaatggatg | 1860 |
| gttaacttaa | tgattccatc | agaggcagat | ttttctctgt | caggtccctg | gataaggtgg | 1920 |
| aggtctgaaa | gccaggagac | agaatatgta | cttaategcc | ctttctgacc | tgcttaccag | 1980 |
| tgaccaggac | tactctccag | gcctttcttc | tgccacttcc | ccattcttcc | tggttagttc | 2040 |
| agttgggtct | cagcacttca | actcctggct | ggatcctgag | ttttcttgg | ttgcagggaa | 2100 |
| agctctcact | gtctgcatct | ccttccccac | ccccacctcc | cgttttgcag | ctggccattc | 2160 |
| tggtgcctc | acagctatcc | tgcttaatt | catatttgat | tgcttgaca | gaaccaccta | 2220 |
| gaatgtccag | acgactgcca | cccctcagcc | atgggcctga | gatcctgcc | tgaccccttt | 2280 |
| cttcagaccc | caggaggacc | cacaatctcc | ctgatcccca | ccttcccaa | agtagtctct | 2340 |
| aggaaaaaag | cagagctggc | taaggcctga | gacagagcca | tttcttcccc | ttgggcaaac | 2400 |
| gaggtagacc | ctcccagaga | ccaatgccgg | agaggcccg | atccgagctc | cctttatatg | 2460 |
| gcctccccc | tcacggatcc | cgtgggaaaa | cctgacacac | aatggcgcg | ctgctccggg | 2520 |
| caccctcaac | ccagcgccct | gcggcaaggc | ctggagcagc | ctggtggtct | tggtgcgctc | 2580 |
| cctttgccct | ccccgcaacc | ctctgcgagc | actcgcccc | ggagagagac | cctggctagg | 2640 |
| gtggagggtg | cctcccgcaa | agggcgctgt | tgctggggcc | tcccctcccc | cattctcttg | 2700 |
| ttttctgct | tctgagactc | gggaggagg | cggcaggcgc | ctccgcagcc | gatagagcag | 2760 |
| ctattgtgac | cttcccttgc | agagcgggaa | cccagccgag | tgtgtaccgc | cggcggtggc | 2820 |
| gggggaggag | gcgactgtgt | gtgcaaacct | cagtcggaga | gggggtggcg | ctgggaaata | 2880 |
| aaggtttgca | acctcaggca | gttgggccct | tcagagggcg | tttggttggtg | tttagactcg | 2940 |
| gttgctttct | aacactaatt | gcaggctcaa | aaggagcgga | atttattgcg | aaggccaagg | 3000 |
| cggcttggtt | ataatttatg | aagttttaaa | tggtgtgtgc | gcgggcccc | actttctcct | 3060 |
| gggtggtgag | ccgcgcggaa | acgcgcctc | ccccggcacg | ccgccaccc | ccaccacgc | 3120 |
| ccctcagatg | agtctcacgc | caatggcagg | aacagatccg | agctattaga | agtctcgga | 3180 |
| acctccagag | atgacagaag | gtggcagatt | tggtccaagc | cctcaccca | ctcgagagga | 3240 |
| gggcgtcggg | gaaagctgtg | gctgcctgga | gaggagccc | ctgatccac | acttccttgg | 3300 |
| agcctgagtg | tgagaggaag | ctaattgtcag | ccgggctaga | caccgtttaa | agtctaacc | 3360 |
| atgaaacct | aagccgcaaa | tgacacttgg | ggctttgcag | acaccgcag | actcagcaga | 3420 |
| tactcctgcg | gtaacacact | gtgctggaaa | acgcctggag | ccatgacaca | ttacgtattt | 3480 |
| ttattattat | ttatggtagg | aagaggagat | gagggaaaat | cgggctgaat | ctaagcagcc | 3540 |
| tgacaattca | gctagttaat | atttagccag | ttaagaaagg | tggttgtaat | ccctgcaagg | 3600 |
| cagtgaagtc | tcctttgatt | tctctaatag | cttaaaaaat | aatttcttac | aagacaatta | 3660 |
| gaaattctgc | ctatggatgc | aaatttcata | gaaaacaatg | ttaagccttg | aaagtgggtg | 3720 |
| aaatgtgcct | tcgattgaag | tcattttatc | tggtgataca | cttctacaac | atatatatatt | 3780 |
| taaacctgct | cagataaagt | gaaattttagc | aaaaggatat | ccccctccac | ccccaaatct | 3840 |
| aacatgccat | tttaaaaaaca | gcacaaagga | acaaggaaac | taaatattat | tttgagccat | 3900 |
| cattacttag | tgaaatacaa | acatccaaat | agaaacgatt | gttggtccac | caaaagatta | 3960 |
| gaagttaaat | tattttccaca | caataggaat | ttcacttcgt | gtcatcgggg | atgtagtagg | 4020 |
| agttgcatta | tttgctcaaac | caaatagaga | tgctgtggct | gactttgctg | aaatacaaaa | 4080 |
| gaattgaacc | ttatctgaag | gcgttttcta | agtggccctc | cccatagaag | ccgggaagtt | 4140 |
| gtccacccct | agcagaagcc | acattaatat | ttacaaaatg | gttataaatc | cttgaagaca | 4200 |
| tttttgccca | ttttgtataa | gaaacaggag | taaacagggt | gtttataact | gttatgtttc | 4260 |
| attaatgaaa | tattattact | ttacatcttg | gggaatgttt | gttttcttta | gaaatgaact | 4320 |
| aatgatcact | acaaaggaag | aattcatgac | agcatttctc | agagaaaaag | cttaggtacg | 4380 |
| cgtctccaaa | tgatggtttc | tttttctaca | ccttagcttt | ttcatagctc | aattcttctt | 4440 |
| acaacttctc | ttgtgttttt | tctttgattg | tcagttttct | ttcaaagttt | attttttgtt | 4500 |
| acttaatgca | gaaaagtga | ctctggtctc | cccagtgtaa | aagtcgattg | tgtctagaaa | 4560 |
| gaaggcagta | aaaacagcaa | agcaggcgct | gctttcaaaa | agccctgccc | aaatcatccc | 4620 |
| gccagaacc | ttcttaggtt | tgcatcctca | tttccccctc | ccctaatttc | aatagctgga | 4680 |
| aagtaatcaa | gtatcccag | aaccaattta | tgactagac | tccaaataaa | taaaatattt | 4740 |
| ttttcaaagt | gtca | | | | | 4754 |

<210> 12100

<211> 9013

<212> DNA

<213> Homo sapiens

<400> 12100

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gactgggaaa | tttttttatt | ctaaatattt | gttccaatag | taccagacaa | tttgaaatca | 60 |
| ataaactgtg | gtgaggactg | tggtttttga | gaaatgacca | aagtgtgttg | tgccacgcca | 120 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| ccgggcttcc | tgactctacc | catgaaggac | aatttgcggt | cttaatcctt | tatgtcaact | 180 |
| acaaacacca | gccacggtta | cgactgttca | aaactactct | ctcaactagt | tcagaccagg | 240 |
| gggactaagg | aggtgaaatg | tggcccccac | ggcctggaag | cgaattccta | agctcggctg | 300 |
| gataaatcta | caaatataca | cataaatata | ttcagacaag | gataaataat | cagggaaacga | 360 |
| aatgactcgc | ttcaaataat | aaatacacgat | agtttagtcc | gatgcaatcc | ttacggcaca | 420 |
| ggaaggagaa | tataaattaa | ggtctctgaa | actaagctag | acgcggggcca | ggcccaagac | 480 |
| tctccaagct | ctggtccctc | tgcaggggcg | gccgctgatg | ggtctcagac | ttaccttttg | 540 |
| gacaccatta | ccagattgga | gtcccttggt | ccgcagtatg | tggcactgtc | aaattttacag | 600 |
| ggaaggatcc | ttgcggctga | tttatggcga | gtcacccaaa | ggacgcccac | ggaggggagg | 660 |
| cccggctcgc | tgcgcctccg | ccgctggagg | cctgagaccc | gggaggcggc | ggcaggggcaa | 720 |
| gagcggggaa | gggggttccc | gaactgcccc | gcggggcccca | ccctctaccc | caccactaca | 780 |
| gcaagagagg | taattttgcc | gcgagttcgg | gctggcgggc | gccgctacag | atgcgtcagt | 840 |
| ttgggagcct | ccggcagtcg | tccctgagac | gagtggtggg | ccgagagatc | tgtgtaggtg | 900 |
| ggatgagggg | cgcaagggtcc | atggtggtgg | ttgcctggaa | tctgcgcggc | gcaactgtag | 960 |
| tccacgctgg | ccgacgacgg | gtgcgagagg | tggcccagg | tgaagacagg | cccggacgag | 1020 |
| ggcgccatgg | actcgacgaa | ggtgccgccc | acgtacaccg | ggctgccctg | caagttggcg | 1080 |
| ctggcgaaag | cgccgcccgt | gctcgccatg | ggatggggct | cgaactccgg | cgctgcgtag | 1140 |
| cgcttctgtt | gtggcaggca | gctgctgagt | ggcgccgtgt | aggcggccag | gccgtacata | 1200 |
| ttgggctgtg | atgtggcgaa | agcaggcggc | gagggcgctg | cgtagggccag | gccggggcact | 1260 |
| ggcggcagct | ggccggagta | ggccacgtgg | ccagcgggcg | cgccgagcgg | tgggctgcgc | 1320 |
| tcaggggact | ggctagccgg | cgagtgcagg | atgcccttgg | ccttctggtc | cttcttgtac | 1380 |
| ttcatgcgcc | ggttctggaa | ccagatcttg | atctggcggt | ccgtgagatt | cagcaggttg | 1440 |
| gccatctcca | gcggcgcgcg | ccggcacaaag | tagcggttga | agtggaaattc | cttttccaat | 1500 |
| tccaccagct | gcgcgctcgt | gtatgccgtg | cgtaaccgct | tggatgctgg | gcctggcggg | 1560 |
| ctcttgtcct | cgcagctctc | tcctgggcag | ggagggagag | agggagggcg | ctgagcgagt | 1620 |
| gggtggggac | cctcaggact | ggagaggggt | gcttccctgg | ttctcttttc | ctcctccctc | 1680 |
| ccccacctc | caatcctggc | tggggagggg | aagggccgtt | tgagaggtat | gattccaagg | 1740 |
| gggaattcac | ctacctacca | acccccctact | aggcctacct | atcagtcgca | cctgaaacct | 1800 |
| ccatcagcct | tctgagatcc | agttcactct | gcccaccctc | tcccctgcag | cctagtccat | 1860 |
| catcccatcc | ccacccaaag | gccatgaaag | agtttaatat | gagaccagga | gcagctggta | 1920 |
| aggcctccct | ctgtcaaaga | agggccagac | tcctttgaac | actcctccca | gcctctgctg | 1980 |
| ccaggggtgg | ggtatggaga | aggaaaggaa | gagggaaatag | ctccagcctg | ccttgcttag | 2040 |
| gagctggcct | ctggggcaaag | ccccccacca | acccccagca | aagtatgggg | atggagatct | 2100 |
| tggcgcccca | ctgcagccca | actgcactca | aagccaggga | ggtgacaaac | caaaaaataa | 2160 |
| aaaataaaaa | aaaaccaacc | aaacaaacaa | acaaaaaaaa | acactgcctg | ggtatttttag | 2220 |
| ggagtccaag | gccaggctgg | aagcattttg | agtattcaca | gtgctaggag | cagcagcctc | 2280 |
| aacactggct | tttactaccc | tgccacctct | cagctgcttg | tccactccct | cccagggaag | 2340 |
| acaaatggat | ttctcctggg | agggaggggc | tgagcctgca | gctgaggaag | gaggggcagg | 2400 |
| aaaaggagg | tgcaggcagg | ataataacct | ctccctagga | gcagcagccc | cagaaaaacat | 2460 |
| caggcaaacc | agatccctga | tagcaagcca | caccccaggc | cccaaacttg | ccctggacct | 2520 |
| ggaagcaagt | tcatctacct | gaagataaac | cacatcagat | accacaaggt | cagaaaaattt | 2580 |
| caggaacca | gcagtctaag | cagagagaag | gaacagccct | cagagttcct | ggccatgcct | 2640 |
| atcttctaca | tgccttgggt | ggacctagag | aaggcccca | ctggaggggc | tccccttcca | 2700 |
| gtagagaaa | tccaaggctg | ttactgtctc | ccagaatata | ctctcctact | aggacaggca | 2760 |
| cctccccatt | atggatttgc | tggagtggga | gaattgggct | gaggtggggc | aaatagagac | 2820 |
| tcatggttat | gcttagcagc | ccctaaagcc | agactgactg | gattcaaata | caccactttg | 2880 |
| cagtttcaga | atcttgggca | agttgcctat | cctctctaac | agttttctta | tctgtaaaat | 2940 |
| gggatgttta | tcatatacct | acctcaaaag | gttctttgaa | aaattaaatt | agataatgct | 3000 |
| tagaaagtac | ttagtatggt | acttttctaag | acttttagttt | ttatgagttt | aagggaatga | 3060 |
| gattcgtgtg | atatgggcta | tataatcacc | taggcttggg | gattgtaata | cctatcttca | 3120 |
| aatcttgaag | agctgttggg | tgggaagagg | aatggagtta | taattagcag | cccaggaaaa | 3180 |
| cagatatgcc | catataagga | agcactctct | attaatagct | ataagacctg | tccagcaaca | 3240 |
| gcaccagcag | cctggaatgg | aaggggagcac | cctgtcactg | caaggtcacg | accccaatca | 3300 |
| ggaacactaa | aaaaaagaac | attttgacgt | gagtaggagt | ttagacatat | gacctccaag | 3360 |
| ggtgcatttc | cagccctgac | taggcttccct | tgggtcaatc | tggagggggc | ttggtctggc | 3420 |
| agtaggccac | ctcagggagc | tacctgcagt | ggcacagctg | ttcttctgct | tggagtctcg | 3480 |
| tcgagactct | ttcatccagg | ggaagatctg | cttctgatg | gtggctgagg | agctagaaga | 3540 |
| attggggcca | ccttttgggt | tcttggcagg | cactccacct | ccaggattgg | tgggtgaaga | 3600 |
| tgggggcagg | gtcgggtggt | gaggaggggg | ttgtgggtgg | tgctgctctg | agttcagacc | 3660 |
| aggaggctgg | ctgccaccac | ccccaccctg | gctgttccca | gtgcccgggc | gcatgcagct | 3720 |
| gccattgagt | tcagctcctt | tgtgggctgg | ggctctcaga | ggggcagagc | tctggatgga | 3780 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| gcaggcagaa | cctggatagt | cagtgtccag | ggagctggca | gcagcagggg | gtgggtaggg | 3840 |
| ctggtggggg | gtgctgtagc | cgtaagtgtc | cgtagttttg | ctgtagccat | agcctccaaa | 3900 |
| cagtcctggg | ttttcatagt | aagcagcctt | ctgcattgtg | cactcaggaa | gctccagggc | 3960 |
| ctgctgacct | tgctcaaata | acattgacta | ccactgtatc | cttcactgcc | acctccaatg | 4020 |
| tctgctgaat | cctgagagag | ctgggcccgc | ccccaggctc | caggtgacct | gtcagaagaa | 4080 |
| aagcaagagg | ccccagaggg | agtgtcattg | gcaagaccag | tcaatataga | aggactagcc | 4140 |
| catgctctct | gcttcctacc | cacttcacgg | cggggagatg | ggcaagggtg | tggatctgag | 4200 |
| tttatttact | tatctattta | tttattaata | cagtgtcttg | cttggtgccc | aggctggagt | 4260 |
| gcagtggcat | gaacatggct | cactgcagcc | tcaatttact | gggctcaagc | gatcctccca | 4320 |
| ctttagcctg | gtattaatat | ctatttcaga | gtatttcaaa | gtcccagcta | ttctgcagta | 4380 |
| ttaatatgcta | tttcagagta | tttcaaagtc | ccagctattc | tgcagtatta | atagctattt | 4440 |
| cagagtattt | cagagtccca | gctactctgc | agtagctaca | ggtgcccacc | atgcctggct | 4500 |
| acatgtctta | gtgttttggt | ttgttttggt | ttagatggaa | ttttgtcctt | gttgccaaag | 4560 |
| ctggagtgca | gtgtcatgat | ctcagcttac | tgcaacctac | gcctctgggt | tcaagcaatt | 4620 |
| ctcctgcttc | agcctcctga | gtagctggga | ttacaggcac | ctgccaccac | acctggctaa | 4680 |
| ttttttatat | ttttagtaga | gacagggttt | caccatgttg | gtcagggttg | tcttgaactc | 4740 |
| ctgacctcag | gtgatcaacc | cgctctgggc | tccctaagtg | ctgggattac | agggtgtgagc | 4800 |
| cactgcgcca | gctcttagtt | tttttttttt | tttttttgta | gagacagggt | cttacaatgt | 4860 |
| tgcccaggct | ggtcttgagt | tcctgggctc | ttgtgatcct | cccgtcttgg | cctcccaaag | 4920 |
| tgctggaatt | acaggcatga | gccactgctc | ctggcagatt | ttatgaagtt | caacttatatt | 4980 |
| gaacctctgg | aagtatcaga | aggaattttt | cctaaatgta | agaagagttt | ccttcttttt | 5040 |
| agctcaactg | tagctgaggg | aaagggcttc | cctctacctc | cagatacaat | ttactttctt | 5100 |
| caagattgtc | catttagcct | ttcttctgtg | tggaaaagta | cttatagcct | cagacatttt | 5160 |
| gttggtgat | tcgcccacta | aactgtaagc | tccttgacag | caggggctgt | gtcatttgtc | 5220 |
| tactgttctt | aacatccagc | acagtgcctt | gcatgtagtt | agtgcataaa | atgcttgttg | 5280 |
| aataggtgaa | ttaataagtg | gatcaatcag | tcaatcattg | ggtcagcaca | aggttttgat | 5340 |
| gggaaatgaa | agtcctataa | catgtctcaga | acagccagaa | cttaaaaaaa | aaaaaaaaaa | 5400 |
| aaaaaaaaaa | aagggtctcc | ccccacctgg | tttcaaaaatc | acagcatctt | gcatgaaagt | 5460 |
| ccagatagtc | cacttaacga | tgacagggtg | aaaatcacgt | gagtaagctc | tatgaatcag | 5520 |
| cagtgtaaaa | tctacaatgt | agaaaaactag | gggataaaca | ccaacaggag | gacttgcaga | 5580 |
| cttcagact | cattttgagg | ctagaaaatc | ttcttctctt | ttcatttaca | tttttctaga | 5640 |
| ccttttactt | ttgacctccc | ctacttttaa | acagatacca | ctggaaatgg | gcaaagagat | 5700 |
| ctagaatttg | aaatgcatgg | aacatgggtg | agtggagaat | gctttataac | tttattatatt | 5760 |
| ttgccttgga | tctattgtat | aaatagatat | tattgacatc | tgctctggat | aatctattct | 5820 |
| accctacctc | ccacccaaac | cacaaccaat | gagagaacct | ttcatgacat | gatgaatgga | 5880 |
| cccagaatta | gaagaagaaa | aaaaagctaa | gaaaaatcct | acctcttttg | tattcccttc | 5940 |
| tttatggggg | tttcccttct | ctccctgcct | ccctacttct | tctgaaaggc | tcctaaagag | 6000 |
| ttaaagtata | actaatacca | ttcaatcact | ttgtctgttt | gataaagaaa | actcataggt | 6060 |
| cagctccctg | gtctcaattc | ttgatctgtc | tttcaggcaa | ctttcccttc | tagaaaactct | 6120 |
| ccctggcttc | catcctgggtc | atcatgatgt | accacatcat | ctagacagct | tatgtggcct | 6180 |
| aatggatttg | accacaggta | ccagaatgat | tcactagtgt | tccctccacc | tgcaccaaac | 6240 |
| agcctaacct | aaatttttaa | attcttctaa | ttagtctttg | gtaggtagtg | ttgttgccct | 6300 |
| ttttgttttg | tcttgtttta | gaatataagt | gagtatgcca | tttgtcttga | tgaggaacag | 6360 |
| gcccttaata | ccaagatact | atgttgtaga | aattgtttcc | attattgttc | ttaaattgat | 6420 |
| gtaggttagga | tatctactta | acaaagctgg | acttaatttt | tcttttgatt | aattttatat | 6480 |
| atcattctct | gttaaaagtt | actggatatc | aaatggacag | ctaagtcttc | attctgtgac | 6540 |
| taatacttac | atatgtttgc | cccctgtctg | agaaaggagg | actctggatt | tggttatggt | 6600 |
| tcaggctttt | ctggatatcct | gctttcagtc | ttaacctctt | ggaggcctaa | tggtcacatc | 6660 |
| ggacactcag | actaccagaa | cttgctgctg | ctctgtcatt | ccatttacia | ctgtggaagc | 6720 |
| aaaacattca | ccctcctgcc | tcccaggttg | acaaagttga | tctagatagg | tgaaccagtc | 6780 |
| acgttaaaat | agcttactta | ggaactgacc | agttcttctg | ggacagatgg | ctttatatat | 6840 |
| atatttgctt | ctatggcata | ttcctagaaa | aagttctgtg | tacagacctc | aaaagtacaa | 6900 |
| acattgggca | tcttcctgaa | aaaccagagt | ctgttttccct | aactgtttac | attgtctcaa | 6960 |
| gaaattttccc | actcaatgac | aatccactac | cttaatgtcc | atttccccaa | aagcaagagc | 7020 |
| cagtgatggg | gctgtcctta | ctggaaatgg | ctttgcagtc | ccccaaaaat | gcagtttccc | 7080 |
| aaaagtgatc | cctcttaaaa | caaaaactga | gaatatagtt | acaaaactgg | taaaaaggct | 7140 |
| tatttctttt | cagaaatccc | tactccttga | gaactctgct | tgaacctaaa | aagcaggaaac | 7200 |
| gggtcataaa | tcacttggac | aatgggtcaac | tgttcagtg | ctcatctttt | cgatcacccc | 7260 |
| ctcacccttt | ttttaaagcc | tttcttttct | cgcccttttg | tacctttgct | catttgggct | 7320 |
| ccaagaccca | aatgtcttgg | ggtgaagatg | agccagtgtt | gggggagggg | tggtcgagca | 7380 |
| cggcttctca | tttcttccaa | gtcctcagct | gccctttcct | ctccctcctc | ctctcctcca | 7440 |

| | | | | | | | |
|--------------|-------------|-------------|-------------|-------------|------------|------------|------|
| cctcttagcc | cggggaactg | gccagggcag | cctccccaaa | ctccgcgggc | gccatcccc | 7500 | |
| gctcctcctg | ggaaaggggt | gccaaatagg | tctggctcgc | cctttcttgc | ggtgctggga | 7560 | |
| agttgcccaa | ctcagcttgg | aggcccaacc | gcaggcccgcg | aatacagggc | caaacggtct | 7620 | |
| cctgccggaa | ggaaggtatt | ctctgagcgg | ccaccgcccg | cttccccggg | cccgccggcc | 7680 | |
| cgccgcaacc | gctgcgcctc | caaagcagcc | gaaccctgat | acttgctcac | cgcacttaat | 7740 | |
| gctactagag | atcaataacct | aatatgatac | caaataaata | aaaggcgctc | acagcgacca | 7800 | |
| ggggacgggg | ttattaagca | gctggagctc | tcacggtgca | tatcaatgca | cctgtcattg | 7860 | |
| tggtttgtag | caaaatttat | gactgcgacc | ctgttcagca | tacggcggcg | taaacgcttc | ggtaaggaat | 7920 |
| gaaaagaaaa | acacttccca | aggcccgcca | cttttcagca | gtggaaaagca | ggctccgcgt | 7980 | |
| aggaggcagc | gcagcaaaaag | aattccctac | tccgcacttt | tcccgcctctt | gcaccctgcg | 8040 | |
| agcagcagga | ttatataaag | tgaccggcgc | ctgcttctgc | tagcagctct | gctcggcggt | 8100 | |
| cggaggcggg | acgaacgcgc | gcagcctcgc | tggggaccaa | aaatctgctg | cccgtggtgg | 8160 | |
| cctcggacgc | cgggaggcta | gtccgacttg | cggaggccgcg | ctcggcactt | gcttgtagcg | 8220 | |
| cggtggcagt | ggaaaagctg | agggggcctt | ggaagggagg | ggacaccagg | cgccaggctg | 8280 | |
| tgactagcgc | tgcaatcgtc | gtaaatcacc | gacgggtaga | gtcagcccat | ccaagttgaa | 8340 | |
| agagaggggg | aaggcgatgg | aggttgcggt | cagtttctgt | caaaatccgc | tagtgctcga | 8400 | |
| gctgggtctcg | gcgcctcccc | ctgttttgcc | taaacaaggg | tcagaagccc | acggatctct | 8460 | |
| ttctggcggc | caagactttt | gctgagcatc | cccacgaatt | cactggaacc | gagcaacgat | 8520 | |
| tctccctttc | ctgttggttt | tgctacttgc | ggattcgaaa | ccactggttt | ttgggttttg | 8580 | |
| tcgaaaggag | acttcttttac | gttcgcgcca | agttctcccg | atctctaagc | ttgagcctct | 8640 | |
| tttgctctat | aagaagacct | ggacgcgcct | tctaaatcac | tcttathtag | cccagataac | 8700 | |
| tcaatactgt | aatgcaccct | gtattttaagg | cactgggcct | gccccattaa | agcgccataa | 8760 | |
| at ttgaaaggc | caatgatcgg | ttttcatgta | acgggtggta | cttcatactg | aagtgaccca | 8820 | |
| cttcaaagct | gcccttttgt | ctatgtcttg | atgtatgaat | tttgagatgg | ccaccttgag | 8880 | |
| ttgcagaggg | aaatgtactg | gaaattatta | tttaaattgat | gcccactcac | cacaattatg | 8940 | |
| tatgtgtgtg | ttttcttgaa | ttttgtcttt | atctcttttt | tttttgtagg | ctcttcagg | 9000 | |
| ttctttttgat | atc | | | | | 9013 | |

```
<210> 12101
<211> 566
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|-----|
| <400> 12101 | | | | | | |
| gactgggaaa | tttttttatt | ctaaatatatt | gttccaatag | taccagacaa | tttgaaatca | 60 |
| ataaactgtg | gtgaggactg | tgggtttttga | gaaatgacca | aagtgtgttg | tgccacgcca | 120 |
| ccgggcttcc | tgactctacc | catgaaggac | aatttgcggt | cttaatcctt | tatgtcaact | 180 |
| acaaacacca | gccacggtta | cgactgttca | aaactactct | ctcaactagt | tcagaccagg | 240 |
| gggactaagg | aggtgaaatg | tggcccccac | ggcctggaag | cgaattccta | agctcggctg | 300 |
| gataaatcta | caaataatac | cataaataca | ttcagacaag | gataaataat | cagggaaacga | 360 |
| aatgactcgc | ttcaaataat | aaatacacgat | agtttagtcc | gatgcaatcc | ttacggcaca | 420 |
| ggaaggagaa | tataaattaa | ggtctctgaa | actaagctag | acgcggggcca | ggccaagact | 480 |
| ctccaagctc | tggctccctc | cgagggcgcg | cccgctgatg | ggtctcagac | ttacctttgg | 540 |
| gacaccatta | ccagattgga | gtccct | | | | 566 |

```
<210> 12102
<211> 18408
<212> DNA
<213> Homo sapiens
```

| | | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|--|-----|
| <400> | 12102 | | | | | | |
| atgtgatgca | tgctcacgtg | tctccgcagc | cggctcggga | aagaatcccc | caaggtaggt | | 60 |
| ggccggagac | aggctctgga | gggtggaagt | gttagatccc | cgaggctctgt | ggagccccctc | | 120 |
| agtccccgcc | accgcgga | agctcagacc | ctttccctgc | aggggtccag | atcctggcgt | | 180 |
| cctcgcacca | cgcccgctcc | tctgttgctc | cagctctgcc | gcgcctttac | ccagccagag | | 240 |
| ggtctccacc | cagtcctagg | ccgggacctg | gtcccgaggc | tcttccccag | gttaccaccac | | 300 |
| agtagcccac | ccttctcgct | ccaggctctg | gaatgcgcc | gccccggcct | cctggccccg | | 360 |
| gtgcgccctg | gctcacctca | caaagcctca | cctcacaag | cagccaccac | tttctatctc | | 420 |
| agggctccaa | ccccaggctg | gactggggagc | acactccagt | tgggatctga | ggggcctaca | | 480 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| tcgctggcct | gagcatgtgg | gcatcaggct | tctattctgg | ctctgccage | tacccactgt | 540 |
| gaccttagtc | taacctctcc | ctcctgggcc | tgttttcccta | tctgtcctga | agctccattt | 600 |
| catgagtaag | cgtgagagcc | gctcagtttc | ctccagctct | gctgaagcca | gcacagaagt | 660 |
| agcccaaaact | cttccctctg | ctgacagcaa | attttaggca | aagtcttgag | aaagaagaaa | 720 |
| ttgggtccag | aaagggaagt | gaggagaatc | agatcccaga | cctttgggga | gaaggagcaa | 780 |
| ccgcctctgg | cacagcccat | cagggagaaa | gagcaggtaa | ggtgcaacaa | tgagctgagt | 840 |
| aatttgccag | tgagcagtgg | gggtgccgag | aggctctaac | caaggcagag | aatctgcaag | 900 |
| aggtgggacc | cccagcttct | gagttccacg | aggaccccag | cctgcactct | catgtgggtg | 960 |
| gcaggagagg | ctggaggatg | gtgcaggact | cgggcagggg | tgcccaaggg | aaacattttg | 1020 |
| gttgagagat | caggaagccg | caccaagcct | tgtgaccttg | gacgaatcac | tctgtagacc | 1080 |
| tctgtctctg | tgacgtgagc | agcggggagg | agatgggtcac | agctctggca | gtgggtcactt | 1140 |
| tgcagggttc | tttctctagc | tacactggaa | gcctgggagt | ccaagactc | tgcttctgct | 1200 |
| gctcactgct | ttgattttgc | tgagttgctc | gttgggtgac | aggatgtgta | agaggatgtg | 1260 |
| taagccctgt | gacatctgac | agatctttct | gggtttcgag | ccagcagagg | aatgtttcct | 1320 |
| ctgggtgccat | gtcccttggg | tccatgcttg | ataacagatg | gctgagagca | catgaacttt | 1380 |
| caccctttcc | ctctcatgag | tggatgggtcc | ccagctttgt | ttgtccatca | tcaggaggag | 1440 |
| caatgggaag | tagtccaagg | ggtcttggtta | gtcattttta | acccccagtg | ggctgaaggc | 1500 |
| atcagagagg | gtggcccaat | ggttagggca | gtcattatgg | ctgaatatgc | tcagttccct | 1560 |
| ttttttccct | ctgggctata | aagactaaac | caggctgggg | gctgtggctc | acgcctgtaa | 1620 |
| tcccagcact | ttgggaggcc | gaggcagcag | gattgcttga | gcccaggagt | tcaagaccag | 1680 |
| cctgggcaac | atagttgagac | ctcctcatct | ctacagaaaa | tttaaacatg | acaggcgtgg | 1740 |
| ggggctttgtc | acgtggggaga | agtcacatgg | gagaagagtt | gagaattggc | ctgaattttg | 1800 |
| aaaggccaat | tttgtttccc | acaggaacaa | aaaattttaa | aagttggcca | ggcgtgggtg | 1860 |
| ctcacgcctg | taatcctagc | actttgggag | gccaaggggg | atcacaaggt | caggagtcca | 1920 |
| agaccagcct | ggccaacatg | gcaaaacccc | atctctacta | aaaatacaaa | aattagccag | 1980 |
| gcatgggtggc | gggcacctgt | aatcccagct | actcaggagg | ctgaggcagg | aaagtctctt | 2040 |
| gaaccgggga | ggcagagggt | gcagtgagct | gagattgtgc | cattgcactc | cagcctgggt | 2100 |
| gacaaagcaa | gactccgtct | caaaaaaaaa | aaaaatttta | aaagttagct | ggctgtgggtg | 2160 |
| gcacaaacct | gtagtcccag | gtactcggga | agttgagggtg | ggaggattgc | ttgagcctgg | 2220 |
| tagattgagg | ctgcagttag | ccctgattgc | gcactggcac | tccagcctgg | gcaacagagt | 2280 |
| gataccctgt | ctctaataaa | ataaagacta | aaccaggtag | ggagtagaga | ttaaaatgga | 2340 |
| gttttgtatg | agtaccgtga | aatcgggact | caggaattag | gagactctag | gagaaggagt | 2400 |
| ctttggcaga | tttcgccage | ctgggtggta | accagctaata | agcagcctct | ggggaagact | 2460 |
| gccttggttc | ctccctgccc | ccttagttcc | tgcccttgaa | atctggcctt | cttctctgctc | 2520 |
| tttctcccat | tagctatccc | agggcctctg | tgccattgt | tacctggcca | atagcaccag | 2580 |
| gctgtgggtt | gagttttgtt | tgtttgtttg | ttttgagata | gagtctcact | ctgtcgccca | 2640 |
| gactggagtg | cagtggcggtg | atctgggctc | actgcaaact | ctgtctccta | atttcggggcg | 2700 |
| attctcctgc | ctcagcctcc | tgcacagctg | ggattacagg | ggtgcaccac | cacacctggc | 2760 |
| taatttttgt | atttttagta | gagatggggg | ttcaccatgt | tgccagggt | ggtctcaaac | 2820 |
| tccgtgaccc | aggtgatctg | cccacctcga | cctctcaaag | tgctggaatt | acagatgtga | 2880 |
| gccaccacac | ccggcccagg | ctctgggttt | gatcagtgtt | ctgtccctg | cttgcttagg | 2940 |
| gctggagagt | ctcaggcatg | gtgggtgggtg | gcaacatggg | aaggggcatc | tgagaaata | 3000 |
| acagcagcag | tgaccattta | ttgagtctta | aacccttact | gatattaaca | cacgaccac | 3060 |
| aggaacatat | gatgtaaagg | cctaaagggg | cgaagtgact | tgcccagggt | cacacagata | 3120 |
| ggcagcggag | gagtcagcat | tctgacggca | gaacctactc | ggagacccag | atcacagccc | 3180 |
| tgcccagggg | tgctcttgat | ctgggggtgg | acttgatgct | ttaggaccat | catttctctg | 3240 |
| cgggtctcag | gctatgagct | gaaccttgag | aacactgaag | atcctttttc | agggctgggc | 3300 |
| tcctcagagc | ctctcgagat | tcttgggaaga | aaaaaaactg | catctcaatt | gtgttttatcc | 3360 |
| agagagcaaa | gagaatcagt | caggtgataa | gcctgttatc | tgagttctgc | cataccaag | 3420 |
| gtaccatctt | ggaccagga | gtggggcaga | tacaaacaga | tggatgccct | atggtcagac | 3480 |
| aggcctgggt | ttgaatccca | gctccaccac | tgaccgccat | atgactgagg | ggagagtggg | 3540 |
| tatccctct | gggattcagc | ttcctctttg | gtaaaatggg | gactgtcatg | tctacctttt | 3600 |
| agggctgcat | tgaggattga | atgagaaagc | attccatagc | tgagcaata | gtggtttata | 3660 |
| gtgacaaaca | gactgcatg | tttggcactg | atcattgtaa | tctagcccag | gaaagcaagc | 3720 |
| ctagtggcca | gtgagatgct | agcacatgag | agagtactga | gaagaaacca | gctagagtgg | 3780 |
| ttctggggcc | ctacatggct | ccaagaagag | ctcagttagt | gaccaggaa | atggggaaga | 3840 |
| aataggacct | aaaagggtgg | cggcaaaagga | gttgggagca | ttagaagcat | gggatgaatc | 3900 |
| actgttttcc | tgaagacgca | aacatgacag | gcatgggggc | ttgtcacatg | agagaagagt | 3960 |
| cgagaatttg | cctgaatttc | gaagggcctc | gaaaggccaca | gaattcagac | tccaggccac | 4020 |
| cgggaggcgt | gctggactgt | aatatgttga | atctcagttc | ttggtaaggg | gtcctttttg | 4080 |
| gaccctgtgg | ggtggaacaa | ggctgggaag | ccagacagat | ctggatccaa | atcctgctat | 4140 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| gcaacttgct | aatatatgac | cctgggtcag | tgatgggatc | tctccgaacc | ttttgaccac | 4200 |
| aagaccatcc | taaggattga | atgagataaa | gtatatccat | gacacacctg | cccgatgcgg | 4260 |
| ggcctctatc | gagtgtgat | gtgttagtac | ccattttatg | ttgacatcta | actggtccat | 4320 |
| tgagtctgta | tgcctgaagc | aagcatgatt | tgcacctgat | ctgtttctgt | gtctgtctcc | 4380 |
| ccatactctg | gcacccagtg | cactgtctgc | acagaggcat | acctgggttt | ggaccctacc | 4440 |
| catgtgatct | tgggaaaagt | attacacctt | tttgtcccct | agttccccc | tcttaggata | 4500 |
| acagtagtgc | ctgcctttgt | cccattctagg | ttgagaagag | tcctaagcta | acagcccca | 4560 |
| acaggtgggt | gttgctcagc | tccctgaggg | atgtggttgt | aaggcagaac | ccacagacct | 4620 |
| tgcaggaaga | aggctctcgg | ggccatggcc | caggtcagca | tcaacaatga | ctacagcgag | 4680 |
| tgggacttga | gtacggatgc | cggggagcgg | gctcggctgc | tgcagagtcc | ctgtgtggac | 4740 |
| acagcccca | agagtgtgtg | ggaagcctct | cctgggggtc | tggacagagg | caccacttcc | 4800 |
| acacttgggg | ccatcttcat | cgctgtcaac | gcgtgcctgg | gtgcagggtt | actcaacttc | 4860 |
| ccagcagcct | tcagcactgc | ggggggcgtg | gcagcaggca | tcgcactgca | gatggtgagt | 4920 |
| gcactggccg | ggagggcaga | ggtgcagttc | agtggggcgc | tttgccctca | aaggagggtc | 4980 |
| tcgggtcagg | gatggccagt | aagtgtataca | cgcactgtct | tcccctccct | cacacatggc | 5040 |
| agacatgact | aatctattct | agtattcttt | cctgtgacct | aaatgaggct | tcagaagcct | 5100 |
| tccaacaatc | agagaaattt | gaacatcaat | tacatctcta | attttttagg | tgtaacattg | 5160 |
| attttgtggt | atgtttaaaa | agagggccct | tatcttttag | aactacatac | tgaaatattt | 5220 |
| attgatgaaa | tgatatgata | gcttatattg | gcttcacaat | aaatgcagag | tgggagggaa | 5280 |
| ggggaatgat | gaaacaagtt | ggccatgcat | tgatcatttt | tgaagctgag | tgatggatac | 5340 |
| atgccagttc | tttttactat | tctctttact | tttttctttg | agatggagtc | ttgctttgtc | 5400 |
| acccaggctg | gagtgcagtg | gcccagatct | ggcttactgc | agcctctgcc | tcccagtttc | 5460 |
| aagtgtattct | cctgcctcag | cctcccaagt | cgctggcatt | acaggcacc | accaccatgc | 5520 |
| ccagctaatt | tttgtatttt | tagtagagac | ggggttttac | catgttggtc | aggctggtct | 5580 |
| caaactcctg | acttcaagtg | atcctcctgc | ctcagcctcc | caaagtgtct | ggattacagg | 5640 |
| catgagccat | cgcattccagc | ctattctctt | tacttttgta | tggttgcaat | ttttcaaaaa | 5700 |
| actttttgtt | tttaaagaaa | atctcaactc | ggcatcctct | agcagtctct | taaaattgcc | 5760 |
| tttgtgagat | ttgccaaagt | tgcttttggc | actggcccag | taaatgctag | gcgagcccag | 5820 |
| ggtgccctct | gctgccaggg | ccttgccaca | agctcttggt | ctgcctctgc | ctgcagggtg | 5880 |
| tgctggtttt | catcatcagt | ggccttgcta | tcctggccta | ctgctcccag | gccagcaatg | 5940 |
| agaggacctt | ccaggaggtg | gtatgggtcg | tggtgggcaa | gctgacaggt | gtgctatgtg | 6000 |
| agggtggccat | cgtgtgtctac | acctttggca | ctctgattgc | cttcctaata | atcattggcg | 6060 |
| accagcagga | caagagtgtg | cttctccctc | agtcctctacc | ccatctcttc | ttatcagccc | 6120 |
| cagggatcct | ggggtggagg | gaaaaggcac | tgaacacctc | tccaggactt | acctgggccc | 6180 |
| agcattcatc | tgggaatcct | ccctccaggg | agagggagggt | cctggggccc | agcagagcag | 6240 |
| gagggccaca | ccccatggtg | gcctggcctt | acattccctc | cttcctccct | gtgcagttat | 6300 |
| agctgtgatg | gcgaaagagc | cggagggggc | cagcggccct | tggtacacag | accgcaagtt | 6360 |
| caccatcagc | ctcactgcct | tctcttctat | cctgcccctc | tccatcccca | gggagattgg | 6420 |
| tttccagaaa | tatggcaggt | ttggaggccc | cagcctgggt | cagacagaag | ctatgatcct | 6480 |
| gggcagctgt | agacccaagg | gctcctgggg | aacctgtctc | ctccatgcca | cctcaccttg | 6540 |
| gggagcaaga | gtaggcaagg | cagggcagac | cggggcttgc | agggtttcag | ataagaccat | 6600 |
| ccttttctgt | ctccatcata | gaaaaaggat | gcatccatga | gagattcagt | tctaaatgtc | 6660 |
| cttttgcata | catgagtgtg | tcagttctaa | gtgcccttgt | caaagaagga | acaggtggta | 6720 |
| tctgggcggg | gaaggcagcc | tcctggcatt | ccctgggagg | aatttgggtc | tttgagactg | 6780 |
| tcagcctacc | agcatcttac | ctgcagcttg | gcatgaagga | aggagactgg | tttctgtctc | 6840 |
| cgggtgtctg | aaggctgtgg | gattctaggg | ttccccgtct | gtaagtgcag | gggccatgct | 6900 |
| ccgctctctc | caaggctccc | ataaatgttg | acacaaaagt | gtctgtactc | tcaacctctc | 6960 |
| tacctctggc | atctcttagt | tctcaaaggc | caggtctaga | ggatggtctc | ccacagcccc | 7020 |
| tgcccgggct | gggctgtctc | gattcaagtc | ccaggtgtgc | tttgagctc | tgctctctgc | 7080 |
| atcgtctctg | agccatggag | ctgaaccagc | acttctctgat | ggccaggaat | gctgatcagg | 7140 |
| tcccctgttg | gctgtccagc | tccttctctag | ctgtggcagg | tttctctgaa | actacttctc | 7200 |
| aggcgtttcc | tgagtctgct | tggcatagtc | tccggttcat | tcagtggaca | cttgtggtcg | 7260 |
| ctagagctga | agggtggatg | ccctaggggt | ggaatcagat | aagaggcagc | tggggatgag | 7320 |
| gacacttagt | ctctccttcc | cggcagcttc | ctgagcgtcg | tgggtacctg | gtacgtcaca | 7380 |
| gccatcgtha | tcataagta | catctggcca | gataaagaga | tgaccccagg | gaacatcctg | 7440 |
| accaggtgag | ggtagaggcc | ctaggagaca | tggggaagaa | gccaccactt | gggccccagc | 7500 |
| agggtgctgg | tcaggaaacca | gaaggccaca | caggtgtctc | tctcaaggct | catgagctca | 7560 |
| tcagggtctga | cttggtcatt | gtagggaagga | ggaaagagcc | cctgctctga | tgttactgga | 7620 |
| aggaagagca | agaatcagag | acaggaggca | ctttgccacc | tacatccaac | agatgagcca | 7680 |
| gtgtgaggct | aggccttggg | ttgtggagga | acctgagggt | ggaatcccag | ggtcgaattg | 7740 |
| cctgtgtttc | cagcatctgc | ttatctgtaa | tttctgtatc | tttgagggtg | aattttattat | 7800 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| taaaaaaaa | gggggggggc | caggcacaat | ggctcacgcc | tgtaatccca | gcacattggg | 7860 |
| aggccgaggg | gggcggatca | tgaggctcagg | agattgagac | catcctgggt | aacacgggtga | 7920 |
| aaccccgctct | ctacttaaaaa | aatacaaaaa | aattagccgg | gtgtgggtggc | aggcgccctgt | 7980 |
| agtagcagct | actcgggagg | ctgaggcagg | agaatggcgt | gaacctggga | ggcagaagtt | 8040 |
| gcagtgaagg | gagatcgcg | cactgcactc | cagcctgggt | gacagagcaa | gactccatct | 8100 |
| caaaaaaata | caaaaacaaaa | caaaaacaaaa | aaaacaattt | ccttcttttg | aaaggaacaa | 8160 |
| accagtaaag | caaaaagcccc | agtccaggag | ccaggaattc | tggatttttg | ccccaggggg | 8220 |
| gctttttctga | acctccaggc | cccattccag | agggccctgg | gacataagga | tgcctcttct | 8280 |
| ccctgttccc | agacttctgt | gggttgaagc | tatggaatcc | cagttgctgg | agaccatggg | 8340 |
| gggctgaccg | aagagtggag | gcgtgggggtg | ggttgtgggt | ctgaggggtt | cccaggtggc | 8400 |
| agcaccatgt | gtgtttgttc | acaggccggc | tccctgggatg | gctgtgttca | atgccatgcc | 8460 |
| caccatctgc | ttcggatttc | aggtgccagt | gccagttgca | aggtccctgc | tgtcccctta | 8520 |
| gatcacccca | ccctgggatg | gaaccagca | aggaggagga | accaggcag | aatggaggaa | 8580 |
| atcctggggg | gaaggatgga | acaggggcct | caggacttgc | ccctgttcc | tggggctctt | 8640 |
| gttcccaagg | taccttcctc | tggaaaactgg | ggttgaggtc | atttccccac | catgacgggtg | 8700 |
| cccttcacct | ggacagtgcc | acgtcagcag | tgtgcccgtc | ttcaacagca | tgcagcagcc | 8760 |
| tgaagtgaag | acctgggggtg | gagtgggtgac | agctgccatg | gtcatagccc | tcgctgtcta | 8820 |
| catggggaca | ggtagagtgt | ccccccccc | aagacctggg | actagagtgc | tctcacttcc | 8880 |
| acaggagttcc | ctagggtcctg | gggcctagct | tccctgggga | cagccctgca | ttcccagcat | 8940 |
| gacttgtata | ggcattgggt | tgaacttggc | ctgcctggag | cctcctcctg | ccaagatgag | 9000 |
| agtgggtgat | tcatccattc | attcaccagt | tctaacttgg | tgcctaggaa | gtgccaggaa | 9060 |
| cgggttctcag | catgggggat | gccatggaga | gagacagaac | tggctcttgc | ctcatggagt | 9120 |
| tgacattctt | gttggagaga | cagtcactgc | gagtaactg | gggaatcagt | aaggaattcc | 9180 |
| agatgggtggc | aagcatcctg | atgacagtga | aatagggaa | gtgtgttttg | ttttattcta | 9240 |
| ttttatttttg | ttttgagaaa | gggtctcaga | aactgtcgcc | caggctggag | tgcagtggca | 9300 |
| tgatgatagc | tactgcaac | ctcaacctgc | tgaggtcgag | tgatcctcct | gcctcagcct | 9360 |
| ccagagtagc | tgggactaca | gccatgtgcc | attgtgcca | gctaattttt | ttttttttt | 9420 |
| ttttctagca | gagacaagg | ctcactatgt | tgcttagcct | ggtcttgaat | tcctgggctc | 9480 |
| aagcaattct | cctgcctcgg | cctcccaaag | tgctgggggt | acaggcatga | gccaccaacc | 9540 |
| cagcctaaaa | tggggaagg | atgaatggga | ctggatgggt | ggctttggga | gtggttcaca | 9600 |
| gaaggttctt | ctcagagaag | gcccaaata | tgagaaaag | ccagaagagg | aggagctggg | 9660 |
| gaagaagggt | tccaggcaga | ggaaccacaa | aacaccaa | cactgaggca | gggccaggaa | 9720 |
| gaaagtctat | gtggctggag | tggtgtgtga | tgggggcagg | tgaaggcagt | gaggccagac | 9780 |
| aggcactggc | agccagatcc | tgttgggcct | cgagggtctg | tgggagtcac | cgagggaagt | 9840 |
| ttttaagcag | gggggtgggt | cggggaaagg | tggctctggc | tgccgtgtgg | agagtgggtg | 9900 |
| gggtgaggga | gcaagtctag | gagaccctgg | aagaaggatc | ccctgagttc | tttccacgga | 9960 |
| tagaccgtag | gagctgcctg | ggccaatact | gttctagcct | ctgaatacac | agccagggaac | 10020 |
| aagagaggca | aacagccaaa | tcctattct | cctggggctc | atgtcctggc | tggggagaca | 10080 |
| gaaaataagc | ctgtaaaaa | taattactat | tattattgtt | attattttta | tttgtattat | 10140 |
| tgtttactta | aagaccagt | tgatagtaca | gttaaaaaaa | aattagaaag | cgatgaggcc | 10200 |
| agtcacagt | gttcacacct | ataatctcag | ctatgggagg | ccaagggtggg | aggttctctg | 10260 |
| gagcccagga | gttcaagaca | ggctgggcaa | catggtgaaa | ctccatctct | acaaaaaatt | 10320 |
| taaaaattag | ccagggttatg | gtaacatgca | cctgtggacc | cagctacttg | ggaggctgag | 10380 |
| gtgggaggat | cgcttgagcc | tatgagatca | aggctgtaga | gacccatgat | catgccatta | 10440 |
| cactccaaac | tgggcaacag | agttagagccc | tgtctctaaa | aaagagagaa | atgagtgtta | 10500 |
| ggggacaggc | ccagtggatc | atgcctgtaa | tcccaacact | ttgaaaagct | gagatggggag | 10560 |
| aaccgcttga | ggccaggagt | tcaagaccag | cctcggaac | atagttagac | tcatctctac | 10620 |
| aaaaattaaa | gaatttagctg | ggcgtccg | aggcattggg | gctcacgcct | gtaatcccag | 10680 |
| gacttttgaga | ggccaagggtg | ggatgaatcac | ttgaggccag | gagttcgaga | ccagcctggc | 10740 |
| caacatggca | aaacctgtgc | tctatcaaaa | ttacaaaaat | tagccggggcg | tgggtgggtg | 10800 |
| gcctgtaatc | ccagctactc | gggaggctaa | ggcatgagaa | tacttgaac | ctgggaggcc | 10860 |
| gaggttgagc | tgagccaaga | tcgctccgct | gcactccagc | ctgggggaga | aagttagact | 10920 |
| ctgtcttcaa | aaaaaaaaaa | ttagccaggc | atgggtggcat | gtgcctgtag | tccagtgac | 10980 |
| ttgggaggcc | aagttagagg | gaacttgagt | ctaagaattc | aagactacag | tggaaactatg | 11040 |
| attgtaccac | ttcactccag | cctgagtgc | agagcaagat | cctgtcttta | aaaaaaaaaa | 11100 |
| aaaaaacggc | caggcactgg | ggctcacg | tgtgatccca | gcactttggg | aggcccaggc | 11160 |
| aggcagatca | catgaggtca | ggagttcgag | agagcccaa | ccaacatggc | gaaacccac | 11220 |
| cttactaaaa | ataaaaaaat | tagggctggg | cgtgggtggc | cacgcctgta | atccagcac | 11280 |
| ttcccgaggc | aggcggtatga | cgaggtcagg | agttcgagac | cagcctggcc | aacatagtga | 11340 |
| aacctcattt | ctactaaaaa | tacaaaaatt | agtcaggctt | ggtggcgggc | gcctgtaatc | 11400 |
| ccagctactc | gggagtctgt | ggcaggagaa | tcacttaaaa | ccagaaggca | gaggtggcag | 11460 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| taagctgaaa | tgcaccact | gcattccagc | ctgggtgaaa | gagcaaaact | ccatctcaaa | 11520 |
| aaaaaaaaa | aattagccag | gtgtggcggc | aggtgactgt | aatcccagct | gcttaggagg | 11580 |
| ctgagggcatg | agaacccagg | agaccaagat | catgccattg | tactccagcc | tgggcatgac | 11640 |
| agagcgcgac | tccatctcaa | aaaaaaaaa | aaaaaaaaa | aaaaaaaaa | agccgggcat | 11700 |
| ggtgtaatcc | cagctactca | ggaggctgag | gcaggagaat | cacttgaacc | tgggaagtgg | 11760 |
| aggctgcact | gagccgagat | cgtgccaccg | cgtgccagcc | tgggcaacaa | gagtgaact | 11820 |
| ccatctcaaa | aaaataaaaa | agaagaaggc | tgggtgtagt | ggctcacact | ctgggagggt | 11880 |
| gaggtaggag | gattacttga | gcccaggagt | tcaagaccag | actgggaaac | gtagcaagac | 11940 |
| cccatctcta | caagaaaatt | agctgggtgt | ggtggcatct | gcctgtagtc | ctagctacct | 12000 |
| gggagggtca | ggtgggagaa | tgccttgagc | cgaggaggct | aaggctgcag | tgagccatga | 12060 |
| tcacactact | gcgctctagt | ctgggttaaca | gggcaagact | ctgtctcaaa | aaagaaaaga | 12120 |
| aaaataagac | agcgtgatgt | gagagagtgc | ctgggggtggg | ggtcattgta | gatggactgg | 12180 |
| caggaagcat | tctctgagga | aggacatcta | aactgagacc | caaataataa | ggagatggca | 12240 |
| tctgaagggtc | tgccagacag | aacagtcagt | gccaaaggcac | tgaggtggga | atgtgtggg | 12300 |
| caagttcagg | ctcagaaaagc | tgggggctgg | agggcttcca | gcgatggggg | atctgagaag | 12360 |
| tcagggaggg | aggcatctga | tcggagcccc | atctccact | ctgagcctcc | gtctaagtgt | 12420 |
| ccagagctgc | tgctgcagcc | tccaggctga | tgttgctcct | aggaggagt | gacagtccac | 12480 |
| cccactaccc | tcccagggtt | gccctgacct | agttgtccct | gcccacaggc | atctgtggct | 12540 |
| tcctgacctt | tggagctgct | gtggatcctg | acgtgctcct | gtcctatccc | tcggaggaca | 12600 |
| tggccgtggc | cgttgcccga | gccttcatca | tcctgagcgt | gtcacctcc | taccctatcc | 12660 |
| tgcacttctg | tgggcggtga | gcccccttcc | actccccagg | gccccctcta | gccccctgtga | 12720 |
| gcgcttccaa | catggtcctt | tggccttggt | tggacccat | cctgtagaag | gagaaactga | 12780 |
| agcctgtaga | aaagagtcgg | tgccttaggt | gggtccctac | atatccagg | ccagggtgtca | 12840 |
| gaagcgccct | ttgtcctggg | gtcaccagaa | cattccgtga | gtcctgtaag | aatctctatc | 12900 |
| catggcatgg | cacggtggct | cacgtctcta | aaccagcac | tttgggaggc | tgaggcagaa | 12960 |
| ggatcgcttg | agcctgggag | ttcaagacca | cctgggcaac | ctagttagac | cccatctcta | 13020 |
| cacaaaataa | aataaatagc | cagggtgtgt | gggatgcacc | tgtggtcca | gctactcagc | 13080 |
| cacttggggag | gctgaggcag | aaggatggct | ggagcccagg | agttcaaggc | tgcatgtgac | 13140 |
| caagattgca | ccactgcact | ccagcctggg | tgagagagcc | agaccctgtc | tcaaaaaaac | 13200 |
| aaaaaacaaa | agaatctcta | tccagatcct | ttcctgagct | ttcacatgga | caccctcccc | 13260 |
| tttggatgcc | ccagacagtt | ccttttaagg | aaaaaacaat | atcagtttcc | atgtgatgta | 13320 |
| aagcaaagtg | ctaagctctc | gacattcacc | gtctctagtc | cctgtggtaa | acagagtgtc | 13380 |
| ggtggcccat | tttacagaag | aggaaaactga | gggtcaggaa | tggggctttc | cccgcagtct | 13440 |
| accagtttag | gggtctggct | cctgtgagct | agaggtgggg | agctgctagc | agcaggggca | 13500 |
| cctctaagcc | cttctccatg | tgggcagggc | ggtggtggaa | ggcctgtggc | tgcgctacca | 13560 |
| gggggtgcca | gtggaggagg | acgtggggcg | ggagcggcgg | cggcgagtgc | tgacagcgct | 13620 |
| ggtctgggtc | ctgctcacc | tgctgctggc | gctcttcac | cctgacatcg | gcaagggtgat | 13680 |
| ctcagtcatt | ggaggcctgg | ccgcctgctt | catcttcgtc | ttcccagggtg | cggacccctg | 13740 |
| gcgccccatc | tcacagcccc | acagcacaga | ctcccagggc | ctgcctagcc | tcagctccct | 13800 |
| acttgctcaa | aacatgcagg | agagagtaac | caccagcact | aattgatcac | ctgtctcgcc | 13860 |
| tctgtactag | cccctatcca | agcattatct | cctggaaaga | aggatatagtt | gtgatctcca | 13920 |
| gtttactgat | ggcacgtggg | gctcagaaag | ggtcacagac | ttgcctagag | cttaacaaac | 13980 |
| tcaactagta | accttttcca | tcccacgctg | tctgggtcca | gagtctattc | ttttaaccat | 14040 |
| tcattcaggt | gtctgctgct | ccttgactat | gagggatcta | tctggctggg | tcagcccatt | 14100 |
| acagcccaga | gggcagtggg | gtctgggggtg | gcaccctgac | acagacatca | gggaacctgg | 14160 |
| gttcacagaca | cagatctacc | gccagatccc | tggagaactg | tcctgtctgc | ccagccatga | 14220 |
| gttccaccct | tttccagctt | gtctctatcc | aggaagccac | cctgaaagcc | ccagctgctt | 14280 |
| tgcttgagac | aggggagcca | gatctgctgg | gaagtgtact | aggaagacc | ctggggttag | 14340 |
| gccaccactg | agtcaccatt | gagtgtctgc | ccttttagctg | agtctagcat | gctgcccaag | 14400 |
| gggtcttgct | agatgccagc | ctgtcatggg | agagcagatg | ccagatgacc | ccagcaggat | 14460 |
| gtggtgtggg | ggcagagatg | gaatttctag | aagagtaaac | atgggccttt | ctccatccag | 14520 |
| cactgcttct | tgggaaagga | ggtggctagg | agggaggggag | ccctctcccc | tcacaaatgc | 14580 |
| tcagggccac | ttcttctctt | tcagggctgt | gcctcattca | agccaaactc | tctgagatgg | 14640 |
| aagaggtcaa | accagccagg | taaagcagga | cccagccctt | gacccctctca | gggagggtgct | 14700 |
| ggattggaat | gtggctttgt | gggggcctta | aaacagatag | gagtcagagg | cttgtgtact | 14760 |
| tagaaatcat | gggtttttgt | tttgtttttt | tttttttgag | ccggagtctc | gctgtgtcgc | 14820 |
| ccagcctgga | gtgcagtggc | acgatctcag | ctcactgcaa | gctccgcctc | ctgggttcac | 14880 |
| accattctcg | tgctctagcc | tcccagatag | ctaggactac | agatgcctgc | caccacaccc | 14940 |
| agctaatttt | tgtattttta | gtagagacga | ggtttcacca | tgttggccag | gccggtctcg | 15000 |
| aactcctgac | cttaggtgat | cctccttcct | cggcctccca | aagtgtggc | attacaggcg | 15060 |
| tgagccacca | caccagcca | ggttgttgtt | gttttttttt | taatactttt | aaaaattcgg | 15120 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|-------|
| tagtgtgcta | gttggttaaca | atttaaaca | taataaagg | cttaatacaa | aaagatggaa | 15180 |
| gtccctcttc | ccccacaacc | cactcgcccc | cacatccttt | ctgagatagc | tccatgttac | 15240 |
| cagtatgggt | tgtgtcctca | accacttctg | tacatgtgtg | cgtgtctgtg | tacacatagc | 15300 |
| tatggagatg | tatacataga | tgcagggtct | ttgttttgtt | ttatgaaaag | tggtttcagc | 15360 |
| caggtgcatt | ggctcatgcc | tgtaatccca | gcactttggg | aggccaacat | gggcagatca | 15420 |
| cccgaggtca | ggagttcgag | accagcctga | ccaacatggt | gaaaccccat | ctctactaaa | 15480 |
| aatacaaaat | tagctgggca | tgggtggcacc | tgcctgtaat | cccagctact | tgggagactg | 15540 |
| aggcaggaga | attgcttgaa | cccaggaggc | ggaggttgca | gtgagccgag | atcacacccat | 15600 |
| tacactccag | cctgggcaac | aagagggaaa | ctctgtctca | aaaaaaaaaa | aaaaaaaaaa | 15660 |
| aaaaaaaaagc | catacaaaaca | tgtctaaaaa | agaaaaaaa | ttggccaggc | acagtgactc | 15720 |
| acgcctgtaa | tcccagcact | ttgggaggcc | aagacaggca | gatcacctga | ggtcaggagt | 15780 |
| tcgagaccag | cctggccaac | atggcaaaaac | cccgtcttta | ctaaaaatac | aaaaattacc | 15840 |
| tggttgtggt | ggcgcatgcc | tgtagtcccta | gctcgggagg | ctgaggtagg | agaattgctt | 15900 |
| gaaccccgga | ggcggagggt | gcagtaagtg | gagatcgcac | cactgcactc | cagcctgggt | 15960 |
| gatagcaaaa | ctctgtctca | aaaaaagaaa | aagaagaaga | agaaaaaaa | tcacccttta | 16020 |
| tttctttttt | ttttgtcttt | tttttttttt | ttttttttga | gatggagtgt | cactcgttgc | 16080 |
| ccaggctgga | gtgcaatggc | gcgatctctg | ctcactacaa | caacctccac | ctcccggggt | 16140 |
| caagcgattc | tctgcctca | gcctcctgag | tagcttggat | tacaggcgcc | caccaccaca | 16200 |
| cccagcta | tttttggggt | tgttgttgtt | gttttgagat | ggaatctcgc | tctgtcaccc | 16260 |
| aggctggagt | gcagtggcat | gatctcggct | cactgcaacc | tccagggtat | ctgggattac | 16320 |
| aggtgctgag | caccatgcct | ggctaatttt | tgtatttttg | gtagagacgg | ggtttcacca | 16380 |
| tgttggctag | ctgatctcgc | aactcctgac | ctcaggtgat | ccgcccacct | tggcctccca | 16440 |
| aagttctggg | attacaggcg | tgagccacca | taccagcca | ttttttgtat | ttttttagta | 16500 |
| gagacggggt | ttcaccacgc | tggccaggct | ggtctcaaac | tctgacctc | aggtgatcca | 16560 |
| cctgccttgg | cctcccaaag | tgctgggatt | atagacatga | gccaccacac | ccagccta | 16620 |
| ttttctat | ttagtagaga | tggggtttcg | ccatcttgcc | caggctgggtc | ttgaactcct | 16680 |
| gacctcaggt | gatccatctg | cctcggcctc | ccaaagtgtc | ggaattacag | acatgagcca | 16740 |
| ctgcacccag | cctaattttt | ctgttttttag | tagagatggg | gttttgccat | cttgcccagg | 16800 |
| ctggtctcga | actcctgacc | tcaggttgcc | cgccttggcc | tcccaaagtg | ctgggattac | 16860 |
| aggtgtgagc | caccacaccc | ggccggaaa | caccctttat | ttcaattccg | ttttatccct | 16920 |
| gttctgttta | attggtacat | acatttgccag | atgtctgctt | tttgtttcct | ttttttaatg | 16980 |
| aaatagacca | cattccatgt | gacgtgcttt | tttctgaaca | tctttccatc | aggatgccta | 17040 |
| cattcgaatc | gtggcatgat | gtgaacaatc | agttactccc | attagatctt | ggctctctta | 17100 |
| cctatggact | agggacaata | cacctggccc | cacactacct | ttgtattgaa | gtctttggga | 17160 |
| agtaggaagt | gctctaccaa | caggagaagt | gcgataatta | cagtaattaa | cagttatata | 17220 |
| tattgaagtc | tgcagtcag | ggatgggatg | actgatcaga | cctctctcac | cctctgttct | 17280 |
| acagctgggt | gggtgctgggt | agctacggag | tctcttgggt | caccttgga | gccttcatct | 17340 |
| tcggccagac | cacagccaac | gccatctttg | tggatctctt | ggcataacca | ctgcctccca | 17400 |
| gggaacacaa | ggcctttgcc | attgggtcgca | ggaacccatc | tcttagagct | atggggccat | 17460 |
| tcttagtcca | cgatcattcc | aactggtggg | atgacatccg | gacatcctct | tccagggact | 17520 |
| ggggcaaaact | caggccccac | acctctggac | agctcaaate | cagtccccct | cctgctcccc | 17580 |
| agtcttgcca | gtgccgtgga | tggcggcagg | aagtctcaca | tcatagagga | cccctcctcc | 17640 |
| tctcccagtt | ctcaacttct | ccatgcctgg | aatccacggg | tgaagagagt | cggtagatct | 17700 |
| cataagaaag | aatccagttc | gacttccctc | tggagaatga | ctatggacag | aaggccacca | 17760 |
| tcttccacag | agcaccctgt | cctgagtagg | ggttgtgtct | attacccag | gccagtggtg | 17820 |
| gcttctctag | gagcctggcc | acttccaacg | gtagcactga | agtcatgcaa | atgcatagtc | 17880 |
| aggtagattc | agaccttgct | cacaccttcc | tgggcaaccc | ccaccatgaa | cctgtcagcc | 17940 |
| tctttcccat | agctaataga | catttcccag | gccttgaggg | gccccaccct | gtctctttca | 18000 |
| tcaaacctga | tgggtccaggc | tgggcatccc | tctcctcctc | catccccaga | catcaccagg | 18060 |
| tctaattgtt | acaaacgggtg | ccagccccggc | tctgaagcca | agggccgtcc | cgtgccacgg | 18120 |
| tgtgtgtagt | attcctccgt | tagctttccc | cataagggtg | ggagtatctg | cttttgtgtc | 18180 |
| tgagatgggc | ccctcttttc | agaggccgca | gggtgggtga | tggagaaggc | tgagaacctt | 18240 |
| tcagaccctc | tgtgtgggct | gggctgggtc | gaatcagggt | gtacctcccc | gacaccttct | 18300 |
| ttttcagtg | tgttttctct | tcttctctgc | tttctctctg | ctcctcccc | gccagcccta | 18360 |
| gcgtgactac | ccagagacaa | aaaaaaaaaa | aaaaaaaaaa | ggcagggc | | 18408 |

<210> 12103
 <211> 18408
 <212> DNA
 <213> Homo sapiens

<400> 12103

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| atgtgatgca | tgctcacgtg | tctccgcagc | cggctcggga | aagaatcccc | caaggtaggt | 60 |
| ggccggagac | aggctctgga | gggtggaagt | gtagatccc | cgaggtctgt | ggagcccctc | 120 |
| agtcgccgcc | accgcggaaa | agctcagacc | ctttccctgc | aggggtccag | atcctggcgt | 180 |
| cctcgcccca | cgcccgctcc | tctgttgctg | cagctctgcc | gcgcctttac | ccagccagag | 240 |
| ggtctccacc | cagtcctagg | ccgggatcgg | gtcccgagc | tcctccccag | gttaccctac | 300 |
| agtagcccac | ccttctcgct | ccaggcctgg | gaatcgcccc | gccccggcct | cctggccccg | 360 |
| gtgcgccttg | gctcacctca | caaagcctca | cctcacaaa | cagcccaccc | tttctatctc | 420 |
| agggctccaa | ccccaggctg | gactgggagc | acactccagt | tgggatctga | ggggcctaca | 480 |
| tcgctggcct | gagcatgtgg | gcatcaggct | tctattctgg | ctctgccagc | taccactgt | 540 |
| gaccttagtc | taacctctcc | ctcctggggc | tgttttecta | tctgtcctga | agctccattt | 600 |
| catgagtaag | cgtgagagcc | gctcagtttc | ctccagctct | gctgaagcca | gcacagaagt | 660 |
| agcccaact | cttccctctg | ctgacagcaa | attttaggca | aagtcttgag | aaagaagaaa | 720 |
| ttgggtccag | aaagggaagt | gaggagaatc | agatcccaga | cctttgggga | gaaggagcaa | 780 |
| ccgcctctgg | cacagcccat | cagggagaaa | gagcaggtaa | ggtgcaacaa | tgagctgagt | 840 |
| aatttgccag | tgagcagtgg | gggtgccgag | aggctctaac | caaggcagag | aatctgcaag | 900 |
| aggtgggacc | cccagcttct | gagttccacg | aggaccccag | cctgcactct | catgtgggtg | 960 |
| gcaggagagg | ctggaggatg | gtgcaggact | cgggcagggg | tgcccaaggg | aaacattttg | 1020 |
| gttggagagt | caggaagccg | caccaagcct | tgtgaccttg | gacgaatcac | tctgtagacc | 1080 |
| tctgtctctg | tgacgtgagc | agcggggagg | agatgggtcac | agctctggga | gtgggtcactt | 1140 |
| tgacgggttc | tttctctagc | tacactggaa | gcctggggag | ccaagactc | tgcccttcgct | 1200 |
| gctcactgct | ttgattttgc | tgagttgctg | gttgggtgac | aggatgtgta | agaggatgtg | 1260 |
| taagccctgt | gacatctgac | agatctttct | gggtttcgag | ccagcagagg | aatgtttcct | 1320 |
| ctgggtgccat | gtcccttggt | tccatgcttg | ataacagatg | gctgagagca | catgaacttt | 1380 |
| caccctttcc | ctctcatgag | tggatgggtc | ccagctttgt | ttgtccatca | tcaggaggag | 1440 |
| caatgggaag | tagtccaagg | ggtcttggtt | gtcattttta | acccccagtg | ggctgaaggc | 1500 |
| atcagagagg | gtggcccaat | ggttagggca | gtcattatgg | ctgaatatgc | tcagttccct | 1560 |
| ttttttccct | ctgggctata | aagactaaac | caggctgggg | gctgtggctc | acgcctgtaa | 1620 |
| tcccagcact | ttgggaggcc | gaggcagcag | gattgcttga | gcccaggagt | tcaagaccag | 1680 |
| cctggggcaac | atagttagac | ctcctcatct | ctacagaaaa | tttaaacatg | acaggcgtgg | 1740 |
| gggctttgtc | acgtgggaga | agtcagctag | gagaagagtt | gagaattggc | ctgaattttg | 1800 |
| aaaggccaat | tttgttcccc | acaggaacaa | aaaattttaa | aagttggcca | ggcgtgggtg | 1860 |
| ctcacgcctg | taatcctagc | actttgggag | gccaaggggg | atcacaagg | caggagtcca | 1920 |
| agaccagcct | ggccaacatg | gcaaaaaccc | atctctacta | aaaatacaaa | aattagccag | 1980 |
| gcatgggtgg | gggcacctgt | aatcccagct | actcaggagg | ctgaggcagg | aaagtctctt | 2040 |
| gaaccgggga | ggcagagggt | gcagtgagct | gagattgtgc | cattgcactc | cagcctgggt | 2100 |
| gacaaagcaa | gactccgtct | caaaaaaaaa | aaaaatttta | aaagttagct | ggctgtgggtg | 2160 |
| gcacacacct | gtagtcctcc | gtactcggga | agttgaggtg | ggaggattgc | ttgagcctgg | 2220 |
| tagattgagg | ctgcagttag | ctctgattgc | gccactggac | tccagcctgg | gcaacagagt | 2280 |
| gataccctgt | ctctaaataa | ataaagacta | aaccagggag | ggagtagaga | ttaaaatgga | 2340 |
| gttttgtatg | agtaccgtga | aatcgggact | caggaatgag | gagactctag | gagaaggagt | 2400 |
| ctttggcaga | tttcgccagc | ctgggtggta | accagcta | atctggcctt | cttctgtctc | 2460 |
| gccttggtc | ctccctgccc | ccttagttcc | tgcccttgaa | atctggcctt | cttctgtctc | 2520 |
| tttctcccat | tagctatccc | agggcctctg | tgccattgt | tacctggcca | atagcaccag | 2580 |
| gctgtgggtt | gagttttgtt | tgtttgtttg | ttttgagata | gagtctcact | ctgtcgccca | 2640 |
| gactggagtg | cagtggcgtg | atctgggctc | actgcaaact | ctgtctccta | atttcggggc | 2700 |
| attctcctgc | ctcagcctcc | tgcacagctg | ggattacagg | gggtgcacca | ccacacctgg | 2760 |
| ctaatttttg | tatttttagt | agagatgggg | tttcaccatg | ttggccaggc | tggtctcaaa | 2820 |
| ctcctgaccc | cagggtgatct | gcccacctcg | acctctcaaa | gtgctggaat | tacagatgtg | 2880 |
| agccaccaca | ccgggcccag | gctctgggtt | tgatcagtg | tctgctccct | gcttgcttag | 2940 |
| ggctggagag | tctcaggcat | gggtgggtgg | ggcaacatgg | gaaggggcat | ctgcagaaat | 3000 |
| aacagcagca | gtgaccattt | attgagttct | aaacccttac | tgatattaac | acacgaccca | 3060 |
| caggaacata | tgatgtaaag | gcctaaaggg | gcgaagtgac | ttgcccagg | tcacacagat | 3120 |
| aggcagcgga | ggagtcagca | ttctgacggc | agaacctact | cggagaccca | gatcacagcc | 3180 |
| ctgcccagg | ctgctcttga | tctgggggtg | gacttgatgc | tttaggacca | tcattttctc | 3240 |
| gcgggtctca | ggctatgagc | tgaaccttga | gaacactgaa | gatccttttt | cagggctggg | 3300 |
| ctcctcagag | ccctctgaga | ttcttggaag | aaaaaaaact | gcattctcaat | tgtgtttatc | 3360 |
| cagagagcaa | agagaatcag | tcagggtgata | agcctgttat | ctgagttctg | ccatacccaa | 3420 |
| ggtaccatct | tggacccagg | agtggggcag | atacaaacag | atggatgccc | tatgggtcaga | 3480 |
| caggcctggg | tttgaatccc | agctccacca | ctgaccgcca | tatgactgag | gggagagtgg | 3540 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ttatccccctc | tgggattcag | cttcctctttt | ggtaaaatgg | tgactgtcat | gtctacctttt | 3600 |
| tagggctgca | ttgaggattg | aatgagaaaag | cattccatag | ctgcagcaat | agtggtttat | 3660 |
| agtgacaaac | agcactgcat | gtttggcact | gatcattgta | atctagccca | ggaaagcaag | 3720 |
| cctagtggcc | agtgaatgc | tagcacatga | gagagtactg | agaagaaacc | agctagagt | 3780 |
| gttctggggc | cctacatggc | tccaagaaga | gctcagttag | tgaccagga | aatggggaag | 3840 |
| aaataggacc | taaaagggtg | gcggcaaagg | agttggggagc | attagaagca | tgggatgaat | 3900 |
| cactgttttc | ctgaagacgc | aaacatgaca | ggcatggggg | cttgtcacat | gagagaagag | 3960 |
| tgcagaattg | gcctgaattt | cgaaggccct | cgaagccac | agaattcaga | ctccaggcca | 4020 |
| ccgggaggcg | tgctggactg | taatatgttg | aatctcagtt | cttggttaagg | ggctccttttg | 4080 |
| ggaccctgtg | gggtggaaac | aggctgggaa | gccagacaga | tctggatcca | aatcctgcta | 4140 |
| tgcaacttgc | taatatatga | ccctgggtca | gtgatgggat | ctctccgaac | cttttgacca | 4200 |
| caagaccatc | ctaaggattg | aatgagataa | agtatatcca | tgacacacct | gcccgatgcg | 4260 |
| gggcctctat | cgagtgtga | tgtgttagta | cccattttat | gttgacatct | aactgggtcca | 4320 |
| ttgagtctgt | atgcctgaag | caagcatgat | ttgcacctga | tctgtttctg | tgtctgtctc | 4380 |
| cccatactct | ggcaccaggt | gcactgtctg | cacagaggca | tacctgggtt | tggaccctac | 4440 |
| ccatgtgatc | ttgggaaagt | tattacacct | ttttgtcccc | tagttcccc | atcttaggat | 4500 |
| aacagtagtg | cctgcctttg | tcccacttag | gttgagaaga | gtcctaagct | aacagcccca | 4560 |
| aacagggtgg | tgttgctcag | ctccctgagg | catgtgggtg | taaggcagaa | cccacagacc | 4620 |
| ttgcaggaag | aaggctctcg | gggccatggc | ccaggtcagc | atcaacaatg | actacagcga | 4680 |
| gtgggacttg | agcacggatg | ccggggagcg | ggctcggctg | ctgcagagtc | cctgtgtgga | 4740 |
| cacagccccc | aagagtgaag | gggaagcctc | tcctgggggt | ctggacagag | gcaccacttc | 4800 |
| cacacttggg | gccactctta | tcgtcgtcaa | cgctgcctg | ggtgcagggt | tactcaactt | 4860 |
| cccagcagcc | ttcagcactg | cgggggcgct | ggcagcaggc | atcgactgc | agatgggtag | 4920 |
| tgcactggcc | gggagggcag | agggtgcagt | cagttgggcy | ctttgcctca | aaagggaggc | 4980 |
| ttcgggtcag | ggatggccag | taagtgtatc | acgcactgct | ctccccctcc | tcacacatgg | 5040 |
| cagacatgac | taatctattc | tagtattctt | tcctgtgacc | caaatgaggc | ttcagaagcc | 5100 |
| ttccaacaat | cagagaaatt | tgaacatcaa | ttacatctct | aatttttttag | gtgtaacatt | 5160 |
| gatttttgtg | tatgtttaaa | aagagggccc | ttatctttta | gaactacata | ctgaaatatt | 5220 |
| tattgatgaa | atgatattgat | agcttatatt | ggcttcacaa | taaatgcaga | gtgggaggga | 5280 |
| aggggaatga | tgaacaagt | tggccatgca | ttgatcattt | ttgaagctga | gtgatggata | 5340 |
| catgccagtt | ctttttacta | ttctctttac | ttttttcttt | gagatggagt | cttgctttgt | 5400 |
| caccaggtct | ggagtgcagt | ggcccgatct | cggcttactg | cagcctctgc | ctcccagttt | 5460 |
| caagtgattc | tcctgcctca | gcctcccaag | tcgctggcat | tacaggcacc | caccaccatg | 5520 |
| cccagctaatt | ttttgtattt | ttagtagaga | cggggtttta | ccatgttggc | caggctgggtc | 5580 |
| tcaaactcct | gacttcaagt | gatcctcctg | cctcagcctc | ccaaagtgct | gggattacag | 5640 |
| gcatgagcca | tcgcatccag | cctattctct | ttacttttgt | atgttggcaa | tttttcaaaa | 5700 |
| aactttttgt | ttttaagaa | aatctcaact | cggcatcctc | tagcagtctc | ttaaaattgc | 5760 |
| ctttgtgaga | tttgccaagc | ttgctttggg | actggccca | gtaaatgcta | ggcgagccca | 5820 |
| gggtgccctc | tgctgccagg | cctttgccac | aagctcttgt | tctgcctctg | cctgcagggt | 5880 |
| atgctgtttt | tcattcatcag | tggccttgtc | atcctggcct | actgctccca | ggccagcaat | 5940 |
| gagaggacct | accaggaggt | ggatatgggt | gtgtgtggca | agctgacagg | tgtgctatgt | 6000 |
| gaggtggcca | tcgctgtcta | cacctttggc | acctgcattg | ccttccctaat | catcattggc | 6060 |
| gaccagcagg | acaagagtga | gcttctccct | cagtccttac | cccatctctt | cttatcagcc | 6120 |
| ccagggatcc | tggggtggag | ggaaaaggca | ctgaacacct | ctccaggact | tacctgggcc | 6180 |
| cagcattcat | ctgggaatcc | tccctccagg | cagagggagg | tcctggggcc | cagcagagca | 6240 |
| ggagggccac | accccatggt | ggcctggctt | gacattccct | ccttccctccc | tgtgcagtta | 6300 |
| tagctgtgat | ggcgaaagag | ccggaggggg | ccagcggccc | ttggtacaca | gaccgcaagt | 6360 |
| tcaccatcag | cctcactgcc | ttcctcttca | tcctgcccct | ctccatcccc | agggagattg | 6420 |
| gtttccagaa | atatgccagg | tttgagggcc | ccagcctggg | tcagacagaa | gctatgatcc | 6480 |
| tgggcagctg | tagacccaag | ggctcctggg | gaaccctgct | cctccatgcc | acctcacctt | 6540 |
| ggggagcaag | agtaggcaag | gcagggcgaga | ccggggcctg | cagggtttca | gataagacca | 6600 |
| tccttttctg | tctccatcat | agaaaaagga | tgcattccatg | agagattcag | ttctaaatgt | 6660 |
| ccttttgcag | ccatgagtag | ttcagttcta | agtgccttg | tcaaagaagg | aacagggtgg | 6720 |
| atctggggcg | tgaaggcagc | ctcctggcat | tccttgggag | gaatttgggt | ctttgagact | 6780 |
| gtcagcctac | cagcatctta | cctgcagctt | ggcatgaagg | aaggagactg | gtttcctgtc | 6840 |
| tcggtgtctg | aaaggctgtg | ggattcttag | cttccccgtc | tgttaagtga | ggggccatgc | 6900 |
| tcgctctctc | ccaaggctcc | cataaatgtt | gacacaaaag | tgtctgtact | ctcaaccctc | 6960 |
| ttacctctgg | catctcttag | ttctcaaagg | ccaggctcag | aggatggtct | cccacagccc | 7020 |
| ctgcccgggc | tgggctgtct | tgattcaagt | cccagggtgtg | ctttggagct | ctgctctctg | 7080 |
| catcgtctct | gagccatgga | gctgaaccag | cacttctctga | tggccaggaa | tgtgtatcag | 7140 |
| gtcccctgtt | ggctgtccag | ctccttctca | gctgtggcag | gtttctctga | aactacttct | 7200 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| caggcgtttc | ctgagtctgc | ttggcatagt | ctccggttca | ttcagtggac | acttgtggtc | 7260 |
| gctagagctg | aaggtggatg | tccctagggg | tggaaatcaga | taagaggcag | ctggggatga | 7320 |
| ggacacttag | tctctccttc | ccggcagctt | cctgagcgtc | gtgggtacct | ggtacgtcac | 7380 |
| agccatcggt | atcatcaagt | acatctggcc | agataaagag | atgacccag | ggaacatcct | 7440 |
| gaccaggtga | gggtgagggc | cctaggagac | atgggggaaga | agccaccact | tgggccccag | 7500 |
| caggtgctgg | gtcaggaacc | agaaggccac | acaggtgctc | ttctcaaggc | tcatgagctc | 7560 |
| atcagggctg | acttgggtcat | tgtaggaagg | aggaaagagc | ccctgctctg | atgttactgg | 7620 |
| aaggaagagc | aagaatcaga | gacaggaggc | actttgccac | ctacatccaa | cagatgagcc | 7680 |
| agtgtgaggg | taggccttgg | gttgtggagg | aacctgaggg | tggaaatccca | gggtcgaatt | 7740 |
| gcctgtgttt | ccagcatctg | cttatctgta | atttctgtat | ctttgagggg | gaatttatta | 7800 |
| ttaaaaaaaaa | aggggggggg | ccaggcacaa | tggctcacgc | ctgtaatccc | agcacattgg | 7860 |
| gaggccgagg | cgggcggtatc | atgaggtcag | gagattgaga | ccatcctggc | taacacgggtg | 7920 |
| aaaccccgctc | tctacttaaa | aaatacaaaa | aaattagccg | ggtgtggtgg | caggcgccctg | 7980 |
| tagtagcagc | tactcgggag | gctgaggcag | gagaattggcg | tgaacctggg | aggcagaagt | 8040 |
| tgcagtgagc | cgagatcgcg | ccactgcact | ccagcctggg | tgacagagca | agactccatc | 8100 |
| tcaaaaaaat | acaaaacaaa | acaaaacaaa | aaaaacaatt | tccttctttt | gaaaggaaca | 8160 |
| aaccagtaaa | gcaaaagccc | cagtccagga | gccaggaatt | ctggattttg | gccccagggg | 8220 |
| ggcttttctg | aacctccagg | ccccatccca | gagggccttg | ggacataagg | atgcctcttc | 8280 |
| tccctgttcc | cagacttctg | tgggttgaag | ctatggaatc | ccagttgctg | gagaccatgg | 8340 |
| tgggctgacc | gaagagtgag | ggcgtggggg | gggttgtggc | tctgaggggt | tcccaggttg | 8400 |
| cagcaccatg | tgtgtttgtt | cacaggcccg | cttctggat | ggctgtgttc | aatgccatgc | 8460 |
| ccaccattctc | cttctggattt | caggtgcacc | tggcagttgc | aaggtccctg | ctgtccccct | 8520 |
| agatcacccc | accttgggat | ggaacccagc | agcagtagg | aaccaggga | gaatggagga | 8580 |
| aatcctgggg | ggaaggatgg | aacaggggcc | tcaggacttg | ccccttggtc | ctggggtctt | 8640 |
| tgttcccaag | gtaccttctt | ctggaaactg | gggttgaggt | catttcccca | ccatgacggg | 8700 |
| gcccttcacc | tggacagtgc | cacgtcagca | gtgtgcccg | cttcaacagc | atgcagcagc | 8760 |
| ctgaagtga | gacctggggg | ggagtgggtg | cagctgccat | ggcatagacc | ctcgtgtctt | 8820 |
| acatggggac | aggtgagtgc | tcccccccc | caagacctgg | gactagagtg | ctctcacttc | 8880 |
| cacaggagtc | cctaggtcct | ggggcctagc | tttcttgggg | acagccctgc | attcccagca | 8940 |
| tgacttgtat | aggcattggc | ttgaacttgg | cctgcctgga | gcctcctcct | gccaagatga | 9000 |
| gagtgggtga | ttcatccatt | cattcaccag | ttctaacttg | gtgcctagga | agtgccagga | 9060 |
| acggttctca | gcatggggga | tgccatggag | agagacagaa | ctgggtcttg | cctcatggag | 9120 |
| ttgacattct | tgttggagag | acagtcatgc | aggagtaact | ggggaatcag | taaggaattc | 9180 |
| cagatgggtg | caagcatcct | gatgacagt | aaatagggaa | ggtgtgtttt | gttttattct | 9240 |
| attttatttt | gttttgagaa | agggctctcag | aaactgtcgc | ccaggctgga | gtgcagtggc | 9300 |
| atgatgatag | ctcactgcaa | cctcaacctg | ctgaggtcga | gtgatcctcc | tgcctcagcc | 9360 |
| tccagagtag | ctgggactac | agccatgtgc | cattgtgccc | agctaatttt | tttttttttt | 9420 |
| tttttctagc | agagacaagg | tctcactatg | ttgcctagcc | tggctctgaa | ttcctggggc | 9480 |
| caagcaatttc | tcttgctcctg | gcctcccaaa | gtgctggggg | tacaggcatg | agccaccaac | 9540 |
| ccagcttaaa | atggggaagg | tatgaattgg | actgtagtgg | tggctttggg | agtggttcac | 9600 |
| agaaggttct | tctcagagaa | ggcccaaatg | atgagaaaga | gccagaagag | gaggagctgg | 9660 |
| ggaagaagg | ttccaggcag | aggaaccaca | aaacaccaa | tcactgaggc | agggccagga | 9720 |
| agaaagtcta | tgtggctgga | gtggtgtgtg | atgggggcag | gtgaaggcag | tgaggccaga | 9780 |
| caggcactgg | cagccagatc | ctggtggggc | tcgagggctg | ctgggagtca | tcgaggaagt | 9840 |
| gttttaagca | ggggggtggg | tcggggaaaag | gtggctctgg | ctgccgtgtg | gagagtgggt | 9900 |
| ggggtgaggg | agcaagtcta | ggagaccctg | gaagaaggat | cccctgagtt | ctttccacgg | 9960 |
| atagaccgta | ggagctgcct | gggccaatac | tgttctagcc | tctgaataca | cagccaggaa | 10020 |
| caagagaggc | aaacagccaa | atccctattc | tcttggggct | catgtcctgg | ctggggagac | 10080 |
| agaaaataag | cctgtaaaaa | ttaattacta | ttattattgt | tattattttt | atttgtatta | 10140 |
| ttgtttactt | aaagaccagt | gtgatagtac | agttaaaaaa | aaattagaaa | gcgatgaggc | 10200 |
| cagtcacagt | ggctcacacc | tataatctca | gctatgggag | gccaagggtg | gaggttctct | 10260 |
| ggagcccagg | agttcaagac | aggctgggca | acatgggtgaa | actccatctc | tacaaaaaat | 10320 |
| ttaaaaatta | gccaggttat | ggtaacatgc | acctgtggac | ccagctactt | gggaggctga | 10380 |
| ggtgggagga | tcgcttgagc | ctatgagatc | aaggctgtag | agacccatga | tcatgccatt | 10440 |
| acactccaaa | ctgggcaaca | gagtgaagac | ctgtctctaa | aaaagagaga | aatgagtgtt | 10500 |
| aggggacagg | cccagtggat | catgcctgta | atcccaaac | tttgaaaagc | tgagatggga | 10560 |
| gaaccgcttg | aggccaggag | ttcaagacca | gcctcggcaa | catagtgaga | ctcatctcta | 10620 |
| caaaaaattaa | agaattagct | gggcgtccgc | caggctagg | ggctcacgcc | tgtaatccca | 10680 |
| ggacttttag | aggccaagg | gggtgaatca | cttgaggcca | ggagtctcag | accagcctgg | 10740 |
| ccaacatggc | aaaaccctgt | ctctatcaaa | attacaaaaa | ttagccgggc | gtgggtgggtg | 10800 |
| tgcctgtaat | cccagctact | cgggaggcta | aggcatgaga | atcacttgaa | cctgggaggc | 10860 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|-------|
| cgaggttgca | gtgagccaag | atcgcgccgc | tgcactccag | cctgggggag | aaagtgagac | 10920 |
| tctgtcttca | aaaaaaaaaa | attagccagg | catggtggca | tgtgcctgta | gtcccagtga | 10980 |
| cttggggaggc | caagtcagga | ggaacttgag | tctaagaatt | caagactaca | gtggaactat | 11040 |
| gattgtacca | cttcaactca | gcctgagtga | caagagcaaga | tcctgtcttt | aaaaaaaaaa | 11100 |
| aaaaaaacgg | ccaggcactg | gggctcacgc | ctgtgatccc | agcacttttg | gaggcccagg | 11160 |
| caggcagatc | acatgaggtc | aggagttcga | gaccagccca | accaacatgg | cgaaacccca | 11220 |
| tcttactaaa | aataaaaaaa | ttagggctgg | gcgtgggtggc | tcacgcctgt | aatcccagca | 11280 |
| cttcccagg | caggcggatg | acgaggtcag | gagttcagaga | ccagcctggc | caacatagt | 11340 |
| aaacctcatt | tctactaaaa | atacaaaaat | tagtcagggt | tggtggcggg | cgctgtaat | 11400 |
| cccagctact | cgggagtcctg | tggcaggaga | atcacttaaa | accagaaggc | agaggtggca | 11460 |
| gtaagctgaa | atcgcaccac | tgcattccag | cctgggtgaa | agagcaaaac | tccatctcaa | 11520 |
| aaaaaaaaaa | aaattagcca | ggtgtggcgg | caggtgactg | taatcccagc | tgcttaggag | 11580 |
| gctgaggcat | gagaacccag | gagaccaaga | tcatgccatt | gtactccagc | ctgggcatga | 11640 |
| cagagcgcga | ctccatctca | aaaaaaaaaa | aaaaaaaaaa | aaataaaatt | agccgggcat | 11700 |
| ggtgtaatcc | cagctactca | ggaggctgag | gcaggagaat | cacttgaacc | tgggaagtgg | 11760 |
| aggctgcact | gagccgagat | cgtgccaccg | cgtgccagcc | tgggcaacaa | gagtgaact | 11820 |
| ccatctcaaa | aaaataaaaa | agaagaaggc | tgggtgtagt | ggctcacact | ctgggagggt | 11880 |
| gaggtaggag | gattacttga | gcccaggagt | tcaagaccag | actgggaaac | gtagcaagac | 11940 |
| cccactctca | caagaaaatt | agctgggtgt | ggtggcatct | gcctgtagtc | ctagctacct | 12000 |
| gggaggctca | ggtggggaga | tcgcttgagc | cgaggaggct | aaggctgcag | tgagccatga | 12060 |
| tcacactact | gcgctctagt | ctgggtaaca | gggcaagact | ctgtctcaaa | aaagaaaaga | 12120 |
| aaaataagac | agcgtgatgt | gagagagtgc | ctgggggtggg | ggtcattgta | gatggactgg | 12180 |
| caggaagcat | tctctgagga | aggacatcta | aactgagacc | caaatagata | ggagatggca | 12240 |
| tctgaaggtc | tgccagacag | aacagtcagt | gccaaggcac | tgaggtggga | atgtgctggg | 12300 |
| caagttcagg | ctcagaaagc | tgggggctgg | agggcttcca | gcgatggggg | atctgagaag | 12360 |
| tcagggagg | aggcatctga | tcggagcccc | atctcccact | ctgagcctcc | gtctaagtgt | 12420 |
| ccagagctgc | tgctgcagcc | tccaggctga | tgttgctcct | aggaggagt | gacagtcac | 12480 |
| cccactaccc | tcccagggtt | gccctgaccc | agttgtccct | gccacaggc | atctgtggct | 12540 |
| tcttgacctt | tggagctgct | gtggatcctg | acgtgctcct | gtcctatccc | tcggaggaca | 12600 |
| tggccgtggc | cgttgcccga | gccttcatca | tcttgagcgt | gtcacctcc | tacctatcc | 12660 |
| tgcaattctg | tgggcgggtga | gcccccttcc | actcccagg | gccccctcta | gccccctgta | 12720 |
| gcgcttccaa | catggctcct | tggccttggt | tggaccccat | cctgtagaag | gagaaactga | 12780 |
| agcctgtaga | aaagagtcgg | tgctaggatg | ggtccctaca | tatcccaggc | caggtgtcag | 12840 |
| aagcgccctt | tgtcctgggg | tcaccagaac | attccgtgag | tctgtgaaga | atctctatcc | 12900 |
| atggcatggc | acgggtggctc | acgtctctaa | accagcact | ttgggagggt | gaggcagaag | 12960 |
| gatcgcttga | gcctgggagt | tcaagaccac | ctgggcaacc | tagtgagacc | ccatctctac | 13020 |
| acaaaataaa | ataaatagcc | agggtgtggtg | ggatgcacct | gtgggtccag | ctactcagcc | 13080 |
| acttgggagg | ctgaggcaga | aggatggctg | gagcccagga | gttcaaggct | gcagtgaagc | 13140 |
| aagattgcac | cactgcactc | cagcctgggt | gagagagcca | gaccctgtct | caaaaaaaca | 13200 |
| aaaaacaaaa | gaatctctat | ccagatcctt | tcttgagcct | tcacatggac | accctcccct | 13260 |
| ttggatgccc | cagacagttc | cttttaagga | aaaaacataa | tcagtttcca | tgtgatgtaa | 13320 |
| agcaaagtgc | taagctctcg | acattcaccg | tctctagtcc | ctgtggtaaa | cagagtgtctg | 13380 |
| gtggcccat | ttacagaaga | ggaaactgag | ggtcaggaat | ggggctttcc | ccgcagtcta | 13440 |
| cccagttagg | ggtctggctc | ctgtgagcta | gaggtgggga | gctgctagca | gcaggggcac | 13500 |
| ctctaagccc | ttctccatgt | gggcaggcgg | gtggtggaag | gcctgtggct | gcgctaccag | 13560 |
| ggggtgccag | tggaggagga | cgtggggcgg | gagcggcggc | ggcgagtgt | gcagacgtctg | 13620 |
| gtctggttcc | tgctcaccct | gctgctggcg | ctcttcatcc | ctgacatcgg | caaggtgatc | 13680 |
| tcagtcattg | gaggcctggc | cgctgtcttc | atcttctgtc | tcccagggtg | ggaccctctg | 13740 |
| cgccccatct | cacagcccca | cagcacagac | tcccagggcc | tgcttagcct | cagctcccta | 13800 |
| cttgtcmeta | acatgcagga | gagagtaacc | accagcacta | attgatcacc | tgtctcgct | 13860 |
| ctgtactagc | ccctatccaa | gcattatctc | ctggaaagaa | ggtatagttg | tgatctccag | 13920 |
| tttactgatg | gcacgtgggg | ctcagaaagg | gtcacagact | tgcttagagc | ttaacaaact | 13980 |
| caactagtaa | ccttttccat | cccacgctgt | ctgggtccag | agtctattct | tttaaccatt | 14040 |
| cattcagggtg | tctgctgctc | cttgactatg | agggatctat | ctggctgggt | cagcccatta | 14100 |
| cagcccagag | ggcagtgggg | tctgggggtg | caccctgaca | cagacatcag | ggaacctggg | 14160 |
| ttccagacac | agatctaccg | ccagatccct | ggagaactgt | cctgtctgcc | cagccatgag | 14220 |
| ttccaccctt | ttccagcttg | tctctatcca | ggaagccact | ctgaaagccc | cagctgcttt | 14280 |
| gcttggagca | ggggagccag | atctgctggg | aagtgtacta | ggaagacccc | tgggggtggg | 14340 |
| ccaccactga | gtcaccattg | agtgtgtgtc | ctttagctga | gtctagcatg | ctgcccagg | 14400 |
| ggtcttgtca | gatgccagcc | tgtcatggga | gagcagatgc | cagatgaccc | cagcaggatg | 14460 |
| tggtgtgggg | gcagagatgg | aatttctaga | agagtaaaca | tgggcctttc | tccatccagc | 14520 |

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|-------|
| actgcttctt | gggaaaggag | gtggctagga | gggagggagc | cctctcccct | cacaaatgct | 14580 |
| cagggccact | tcttctcttt | cagggctgtg | cctcattcaa | gccaaactct | ctgagatgga | 14640 |
| agaggtcaaa | ccagccagg | aaagcaggac | ccagcccttg | atcctctcag | ggaggtgctg | 14700 |
| gattggaatg | tggctttgtg | ggggccttaa | aacagatagg | agtcagaggc | ttgtgtactt | 14760 |
| agaaatcatg | gggttttgtt | ttgttttttt | tcttctgagc | cggagtctcg | ctgtgtcgcc | 14820 |
| cagcctggag | tgcagtggca | cgatctcagc | tcactgcaag | ctccgcctcc | tgggttcaca | 14880 |
| ccattctcgt | gcctcagcct | cccagtagc | taggactaca | gatgcctgcc | accacacca | 14940 |
| gctaattttt | gtatttttag | tagagacgag | gtttcaccat | gttggccagg | ccggtctcga | 15000 |
| actcctgacc | ttaggtgatc | ctccttctc | ggcctcccaa | agtgtgga | ttacaggcgt | 15060 |
| gagccaccac | acccagccag | gttgtgtgtg | tttttttttt | aatactttta | aaaattcggt | 15120 |
| agtgtgctag | ttgttaacaa | tttaaacatt | aataaagggc | ttaatacaaa | aagatggaag | 15180 |
| tccctcttcc | cccacaaccc | actcgcccc | acatcctttc | tgagatagct | ccatgttacc | 15240 |
| agtatggctc | gtgtcctcaa | ccacttctgt | acatgtgtgc | gtgtcatgtg | tacacatagc | 15300 |
| tatggagatg | tatacataga | tgcagggtct | ttgttttgtt | ttatgaaaag | tggtttcagc | 15360 |
| caggtgcatt | ggctcatgcc | tgtaatccca | gcactttggg | aggccaacat | gggcagatca | 15420 |
| cccaggttca | ggagtctcag | accagcctga | ccaacatggt | gaaaccccat | ctctactaaa | 15480 |
| aatacaaaat | tagctgggca | tgggtggcacc | tgcctgtaat | cccagctact | tgggagactg | 15540 |
| aggcaggaga | attgcttgaa | cccaggaggc | ggaggttgca | gtgagccgag | atcacaccat | 15600 |
| tacactccag | cctgggcaac | aagagggaaa | ctctgtctca | aaaaaaaaaa | aaaaaaaaaa | 15660 |
| aaaaaaaaagc | catacaaaac | tgtctaaaaa | agaaaaaaa | ttggccaggc | acagtgactc | 15720 |
| acgcctgtaa | tcccagcact | ttgggaggcc | aagacaggca | gatcacctga | ggtcaggagt | 15780 |
| tcgagaccag | cctggccaac | atggcaaaa | cccgtcttta | ctaaaaatac | aaaaattacc | 15840 |
| tggttgtggt | ggcgcatgcc | tgtagtcccta | gctcgggagg | ctgaggtagg | agaattgctt | 15900 |
| gaaccccgga | ggcggagggt | gcagtaagtg | gagatgcac | cactgcactc | cagcctgggt | 15960 |
| gatagcaaaa | ctctgtctca | aaaaaagaaa | aagaagaaga | agaaaaaaa | tcacccttta | 16020 |
| tttctttttt | ttttgtcttt | tttttttttt | ttttttttga | gatggagtgt | cactcgttgc | 16080 |
| ccaggctgga | gtgcaatggc | gcatctctct | ctcactacaa | caacctccac | ctcccggtt | 16140 |
| caagcgattc | tcctgcctca | gcctcctgag | tagcttggt | tacaggcgcc | caccaccaca | 16200 |
| cccagctaat | tttttgggtt | tgttgttgtt | gttttgagat | ggaatctcgc | tctgtcaccc | 16260 |
| aggctggagt | gcagtggcat | gatctcggct | cactgcaacc | tccagggtat | ctgggattac | 16320 |
| agggtgcgag | caccatgcct | ggctaatttt | tgtatttttg | gtagagacgg | ggtttcacca | 16380 |
| tgttggctag | gctgatctcg | actccttgac | ctcaggtgat | ccgccacct | tggcctccca | 16440 |
| aagttctggg | attacaggcg | tgagccacca | taccagcca | ttttttgtat | ttttttagta | 16500 |
| gagacggggt | ttcaccacgc | tggccaggct | ggtctcaaac | tcctgacctc | aggatgatcca | 16560 |
| cctgccttgg | cctcccaaag | tgctgggatt | atagacatga | gccaccacac | ccagccta | 16620 |
| ttttctat | ttagtagaga | tgggggttct | ccatcttgcc | caggctggtc | ttgaactcct | 16680 |
| gacctcaggt | gatccatctg | cctcggcctc | ccaaagtgt | ggaattacag | acatgagcca | 16740 |
| ctgcacccag | cctaattttt | ctgttttttag | tagagatggg | gttttgccat | cttggccagg | 16800 |
| ctggctctga | actcctgacc | tcaggttgac | cgccttggcc | tcccaaagt | ctgggattac | 16860 |
| agggtgagc | caccacaccc | ggcgggaaat | caccctttat | ttcaattccg | ttttatccct | 16920 |
| gttgtctgta | attgggtacat | acatttgcag | atgtctgctt | tttgtttcct | ttttttaatg | 16980 |
| aaatagacca | cattccatgt | gacgtgcttt | tttctgaaca | tctttccatc | aggatgccta | 17040 |
| cattcgaatc | gtggcatgat | gtgaacaatc | agttactccc | attagatctt | ggtcttctta | 17100 |
| cctatggact | agggacaata | cacctggccc | cacactacct | ttgtattgaa | gtctttggga | 17160 |
| agtaggaagt | gctctaccaa | caggagaagt | gcgataatta | cagtaattaa | cagttatata | 17220 |
| tattgaagtc | tgcagtcag | ggatgggag | actgatcaga | cctctctcac | cctctgttct | 17280 |
| acagctgggt | gggtgctggc | agctacggag | tcctcttggg | caccttggga | gccttcatct | 17340 |
| tcggccagac | cacagccaac | gccatctttg | tggatctctt | ggcataacca | ctgcctccca | 17400 |
| gggaacacaa | ggcctttggc | attggctcga | ggaaacctat | tcttagagct | atggggccat | 17460 |
| tcttagtcca | cgatcattcc | aaactgggtg | atgacatccg | gacatcctct | tccagggact | 17520 |
| ggggcaaaact | caggccccac | acctctggac | agctcaaate | cagtccctct | cctgctcccc | 17580 |
| agtcctggca | gtgccgtgga | tggcggcagg | aagtctcaca | tcatagagga | cccctcctcc | 17640 |
| tctcccagtt | ctcaacttct | ccatgcctgg | aatccacggg | tgaagagagt | cggtagatct | 17700 |
| cataagaaa | aatccagttc | gacttccctc | tggagaatga | ctatggacag | aaggccacca | 17760 |
| tcctccacag | agcaccctgt | cctgagtagg | ggttgtgtct | attaccccag | gccagtggta | 17820 |
| gcttctcag | gagcctggcc | acttccaacg | gtagcactga | agtcatgcaa | atgcatagtc | 17880 |
| aggtagattc | agaccttgtc | cacaccttcc | tgggcaacc | ccaccatgaa | cctgtcagcc | 17940 |
| tctttcccat | agctaataga | catttcccat | cccttgaggg | gccccacct | gtctctttca | 18000 |
| tcaaacctga | tgggtccaggc | tgggcatccc | tctcctcctc | catccccaga | catcaccagg | 18060 |
| tctaattgtt | acaaacgggt | ccagcccggc | tctgaagcca | agggccgtcc | cgtgccacgg | 18120 |
| tgctgtgagt | attcctccgt | tagctttccc | cataagggtg | ggagtatctg | cttttgtgtc | 18180 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| cctcaggtga | tccacctgcc | ttggcctccc | aaagtgctgg | gattatagac | atgagccacc | 3000 |
| acaccagcc | taatttttct | attttttagta | gagatggggt | ttcgccatct | tgcccaggct | 3060 |
| ggtcttgaac | tccctgacctc | aggtgatcca | tctgcctcgg | cctcccaaag | tgctggaatt | 3120 |
| acagacatga | gccactgcac | ccagcctaata | ttttctgttt | ttagtagaga | tgggggttttg | 3180 |
| ccatcttgcc | caggctgggc | tcgaactcct | gacctcaggt | tgcccgccct | ggcctcccaa | 3240 |
| agtgtctgga | ttacaggtgt | gagccaccac | accggcgccg | aaatcacctt | ttatttcaat | 3300 |
| tccgttttat | ccctgttgct | gttaatttgt | acatacattt | gcagatgtct | gctttttgtt | 3360 |
| tccttttttt | aatgaaatag | accacattcc | atgtgacgtg | cttttttctg | aacatctttc | 3420 |
| catcaggatg | cctacattcg | aatcgtggca | tgatgtgaac | aatcagttac | tcccattaga | 3480 |
| tcttggtctt | cttacctatg | gactagggac | aatacacctg | gccccacact | acctttgtat | 3540 |
| tgaagtcttt | gggaagtagg | aagtgtctta | ccaacaggag | aagtgcgata | attacagtaa | 3600 |
| ttaacagtta | tatatattga | agtctgcagt | catgggatgg | gatgactgat | cagacctctc | 3660 |
| tcaccctctg | ttctacagct | ggtaggtgtc | ggtagctac | ggagtcctct | tggtcacctt | 3720 |
| gggagccttc | atcttcggcc | agaccacagc | caacgccatc | tttgtggatc | tcttggcata | 3780 |
| accactgcct | cccagggaac | acaaggcctt | tgccatttgt | cgcaggaacc | catctcttag | 3840 |
| agctatgggg | ccattcttag | tccacgatca | ttccaactgg | tgggatgaca | tccggacatc | 3900 |
| ctcttccagg | gactggggca | aactcaggcc | ccacacctct | ggacagctca | aatccagtcc | 3960 |
| ccttctctgt | ccccagtcct | ggcagtgcg | tggatggcgg | caggaagtct | cacatcatag | 4020 |
| aggacccttc | ctcctctccc | agttctcaac | ttctccatgc | ctggaatcca | cgggtgaaga | 4080 |
| gagtcggtag | atctcataag | aaagaatcca | gtctgacttc | cctctggaga | atgactatgg | 4140 |
| acagaaggcc | accatcctcc | acagagcacc | ctgtccttag | taggggttgt | gctcattacc | 4200 |
| ccaggcccat | ggtagcttcc | tcaggagcct | ggcacttccc | aacggtagca | ctgaagtcat | 4260 |
| gcaaattgat | agtcaggtag | attcagacct | tgtccacacc | ttcctgggca | acccccacca | 4320 |
| tgaacctgtc | agcctctttc | ccatagctaa | tagacatttc | ccaggccttg | agggggcccca | 4380 |
| ccctgtctct | ttcatcaaac | ctgatgggtc | aggctgggca | tccctctcct | cctccatccc | 4440 |
| cagacatcac | caggtctaat | gtttacaaac | ggtgccagcc | cggctctgaa | gccaagggcc | 4500 |
| gtcccgtgcc | acgggtgctgt | gagtattcct | ccgttagctt | tccccataag | gttggggagta | 4560 |
| tctgtctttg | tgtctgagat | gggcccctct | tttcagaggc | cgcagggtgg | gtgatggaga | 4620 |
| aggctgagaa | ccttttcagac | cctctgtgtg | ggctgggctg | gtcagaatca | gggtgtacct | 4680 |
| ccccgacacc | ttcttttttca | gtgatgtttt | ctcttcttcc | tgcttttctt | ctgcctcctc | 4740 |
| ccttgccagc | cctagcgtga | ctaccagag | acaaaaaaaa | aaaaaaaaaa | aaaaggcagg | 4800 |
| gctggggcga | gtggctcacg | cctgtaatcc | cagcactttg | ggaggccaag | gcgggcagat | 4860 |
| gacttgaggt | caggagtctg | agaccagcct | ggccaacacg | gcaaaacccc | atctctacta | 4920 |
| aaaatacaaa | aaattaaccg | ggcatgggtg | cgggcacctg | taatcccagc | tacttggggag | 4980 |
| gctgaggcag | cagagccgct | taaaccagc | aggcagagac | tgcaatgagc | tgagatcggt | 5040 |
| ccattgcact | ccagcttggg | caacaagagt | gaaacttcat | ctcaaaaaaa | cagaaacaaa | 5100 |
| caaaaaggca | gctgggttgt | cactgatggg | cagcatttga | gcctgccaca | ctggccttga | 5160 |
| agtttccctt | ccagtctgga | ttttgtctgc | tccttccctc | ccccacccc | cgttacctct | 5220 |
| tcacctccca | tctcatattca | ctgtgtagct | cagtctctcc | cacgcacata | attgggggaca | 5280 |
| gtgggggctc | tcttaccagc | ctcctcagca | acgcacgtcc | atcaggcctg | gcctcagtg | 5340 |
| ccagccacat | tgatgtcaca | ctggaattgt | taccacagag | agggcggaaga | gataggctat | 5400 |
| ctccccacct | cccaccttac | tccccactat | attcccgttt | tgaccacctc | agccccctcag | 5460 |
| ctgccccctc | tacttttggc | caatcccagg | caccaatcag | acttctctct | ccacctggag | 5520 |
| cccctagcat | ttccttgtcc | cctcttcccc | aaaacctctg | taaagggtac | gagagggacc | 5580 |
| ccctgccgag | ccgcccggca | ctcagggcag | tccgatctaa | gaagcagaag | ctgggttgag | 5640 |
| gctggctggg | cctctgtcca | gtccccagat | ggataaaactg | cctttttctca | catccccctct | 5700 |
| tggtgcctga | tcttctctgc | ccccggggcc | agaccacttg | tgctgttttc | tgtcagtctg | 5760 |
| tggcacagca | ccaagctctg | ccagcaccag | tccttgacag | ggctaggagg | acagcctggt | 5820 |
| cagcagggct | gcagtcccc | agtgccgtgt | ttcgggggtc | aagggatgta | agtggagtca | 5880 |
| ttgcacagag | acagaccagt | caggagaagg | agctggaatc | tggcctcttg | tcctaacctc | 5940 |
| aggagccccc | tcccatcctc | tccccacctt | ccctatcggg | gtacttcaact | gtttctttttc | 6000 |
| tacttgtgta | tactcgagaa | aggggaagatg | gttaataaaa | gggatttgtg | ctgctgagcc | 6060 |
| gtgtccctctg | tgtctgatcc | tggggacaga | gtccaggcca | ctgccaggag | gaagaagggc | 6120 |
| tggggtagga | ggtgtagatg | gcattgtcact | gtctctgacc | cctatctccg | gaatggcacc | 6180 |
| gccatgctcc | ctctaccaag | cagggacctg | caagtggctc | ttgccacccc | tgctttcttc | 6240 |
| cacattctac | ctatccttct | ccagtgactt | aggaatgtat | cgcagtctcc | aatcctgcga | 6300 |
| cctctgcctt | cacttaagcc | ctcactgtct | ttccttgctc | tttgtggtct | cagactgtcc | 6360 |
| ccctgacttc | agatcttggc | aagagcttta | aactcctgag | tatccacccc | catcttttca | 6420 |
| gaggcgagcg | ttgagcaggt | cccagctgtc | ttggttatgg | agccaccagt | caccacgctc | 6480 |
| agtgtctggca | agaaaaccag | caaaggccag | gtgtagtggc | tcacgtctgt | aatcccagca | 6540 |
| ctttggggaga | acagggtggg | cagatcacct | gaggtcagaa | gtgcgagaca | agtctggcca | 6600 |

<400> 12107

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|-----|
| cagccaagaa | cagaaccagg | actggatgcc | catttcgtca | ttcaacaaat | atttactgag | 60 |
| cacctacaat | ccctcaaaaa | ctgttctaga | gtctaaaccg | atgggggtcgt | aacctatgcc | 120 |
| ccagcccact | cccttgccagg | aaagaccgtg | gctccagggtc | ccccacatta | ctgattaaaa | 180 |
| aaaaactcca | gtgctctggc | catgggctgtg | aaggcaagga | cagagaccgg | gaggataatg | 240 |
| aggccaaaca | gctttggccc | accgccaccg | ggactggcaa | agaggccaga | cctcctaata | 300 |
| ctcttccttg | gaggaaggag | cagtgtttga | tttgggtcaag | aggccaagac | taaaagtaag | 360 |
| aggataaaca | cgagctggct | ggacgcgagg | ctggctcagg | gcagtgtgtg | cgggctgagg | 420 |
| attcaggagg | ctggtgttgt | ccaagcttca | catttgcgga | aactacaact | cccagcgtgt | 480 |
| cc | | | | | | 482 |

<210> 12108

<211> 1254

<212> DNA

<213> Homo sapiens

<400> 12108

| | | | | | | |
|-------------|-------------|------------|------------|-------------|------------|------|
| gggcgcagtg | gctcacgcct | gtaatcccag | cactttggga | ggccaaggcg | ggcagatgac | 60 |
| ttgaggtcag | gagttcgaga | ccagcctggc | caacacggca | aaaccccatc | tctactaaaa | 120 |
| atacaaaaaa | ttaaccgggc | atggtggcgg | gcacctgtaa | tcccagctac | ttgggagggt | 180 |
| ttggcagcag | agccgcttaa | acccaggagg | cagagactgc | aatgagctga | gatcgtgcca | 240 |
| ttgcactcca | gcttggggcaa | caagagtga | acttcacttc | aaaaaaacag | aaacaaacaa | 300 |
| aaaggcagct | gggtttgtcac | tgatgggcag | catttgagcc | tgccacactg | gcctggaagt | 360 |
| ttcccttcca | gtctggattt | tgtctgtctc | ttccttcccc | ctcaccccg | tacctcttca | 420 |
| cctcccatct | cacttcaactg | tgtagctcag | tctctccac | gcacataatt | ggggacagtg | 480 |
| ggggctctct | taccagcctc | ctcagcaacg | cacgtccatc | aggcctggcc | tcagtggcca | 540 |
| gccacattga | tgtcacactg | gaattgttac | cccagagagg | gcgaagagat | aggctatctc | 600 |
| cccacctccc | accctactcc | ccactatatt | cccgttttga | ccacctcagc | ccctcagctg | 660 |
| ccccctctca | ctttggccaa | tcccaggcac | caatcagact | tcctctctcca | cctggagccc | 720 |
| ctagctatttc | cttgtcccc | cttccccaaa | acctctgtaa | agggtagcag | agggaccccc | 780 |
| tgccgagccg | cccgcactc | agggcagtc | gatctaagaa | gcagaagctg | gttggagggt | 840 |
| ggctgggcct | ctgtccagtc | cccagatgga | taaactgcct | tttctcacat | cccctcttgg | 900 |
| tgctgatct | tctctgcccc | cggggccaga | cccactgtgc | tgttttctgt | cagtctgtgg | 960 |
| cacagcacca | agctctgcca | gcaccagtc | ctgacagggc | taggaggaca | gcctggtcag | 1020 |
| cagggctgca | gtcccccagt | gccgtgtttc | gggggtcaag | ggatgtaagt | ggagtcattg | 1080 |
| cacagagaca | gaccagtcag | gagaaggagc | tggaatctgg | cctcttgtcc | taacctcagg | 1140 |
| agccccctcc | cactctctcc | ccacctccc | tatcggggta | cttcaactgt | tcttttctac | 1200 |
| ttgtgtatac | tcgagaaaag | gaagatggtt | aataaaaggg | atttgtgtctg | ctga | 1254 |

<210> 12109

<211> 1555

<212> DNA

<213> Homo sapiens

<400> 12109

| | | | | | | |
|-------------|------------|-------------|-------------|------------|------------|-----|
| cagataacca | aaccagactg | gaagaggata | acaagatccc | aaagaggaaa | aaaaattgtt | 60 |
| cttccaggat | gtcaaacct | tctttgagat | attcatcatc | caaaggggtc | tggggttctc | 120 |
| tttttccaaa | tattaggata | atgcaaatat | tctgtctcat | ggtggacgca | cactgtgttt | 180 |
| acatcagtc | acccttcaaa | catgagtcag | agaaatcttt | ctctaaatga | aggtgccatt | 240 |
| tctattgaca | gtcgaacttc | gtaaagggtat | gactttgagt | tgttttgact | agtagaaaga | 300 |
| aacatttgcc | cttttttgc | ctgtttctgt | atttaggctt | tcacttgtcc | tagccaagat | 360 |
| tatttagatc | cccaatacgg | aagggtcaaat | atgttaaattg | ctaaataatt | agattctctt | 420 |
| gatttacaca | aaaaaccata | actaactaaa | atagaaactt | ttaattatct | gtattgttgt | 480 |
| ataaaatgtt | ttatatatta | ggaatctaaa | aatttgtttt | ttgcttgat | cctctgtcat | 540 |
| aggaagaaga | catcatgtct | ctgtttactg | taaccattaa | taaaggctaa | taacagacag | 600 |
| tacatgatga | tacttttaac | tagggcaaac | aaaagtaata | ttttaacaat | gaggttttgt | 660 |
| ctttgtctatc | tatacctcat | gtctaatttt | ccctacaatg | taaatgtcat | tcctcctctc | 720 |
| taccattttg | taagggtctc | agttttctgc | tcttgcatga | cttattttta | agggtcacaa | 780 |
| taaggccagg | taattcatat | tttaaaaatt | ccatttagaa | taattacatc | taaaaattca | 840 |

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|------|
| caagaaagac | aatttcaata | taaaataata | aattactaat | attggaattt | caagcattag | 900 |
| tcattggcaaa | aaagagataa | tttgtagcag | aatattttaa | tggcaacttt | cttattctat | 960 |
| cacttattgt | gttctatttg | ttatgaccaa | agaaattact | ctatatccac | tacaattcat | 1020 |
| aaaacaggga | tgagggaagtc | tttttttctt | ggtgctcatg | tctaagaaga | tgaacctcag | 1080 |
| aggtatgtca | ttttttcaata | ctatgttctg | aacagacagc | acacattatt | tttgaatgga | 1140 |
| caacaaaatc | tcaaaacata | tatagagagg | tatggttgga | ggtgtgtcca | gtatgaggat | 1200 |
| aatatgacct | agcggatgta | aaattggatt | ttattattaa | aggaaaatgg | ggtgtcttca | 1260 |
| aaaagataaa | acagcgggag | ttgggatgag | tactgagaaa | agagcacaaa | aacaggcttg | 1320 |
| tagaggagga | agatctcaac | agagctgact | cttatctgtg | ctcacattca | aaactgactt | 1380 |
| ttgaacaaaa | gctgcatact | ttgccctata | ctatagctcc | aactactctg | gaggccaagg | 1440 |
| caggagaatc | acttgacact | gggaggttga | ggttgagctg | agccgagatc | gtgccactgc | 1500 |
| actccagccc | gcgcaacaga | gcaagactct | atctcaaaaa | aaaaaaaaaa | aaaaa | 1555 |

```
<210> 12110
<211> 115
<212> DNA
<213> Homo sapiens
```

```
<210> 12111
<211> 1555
<212> DNA
<213> Homo sapiens
```

| | |
|-------|-------|
| <210> | 12112 |
| <211> | 8297 |
| <212> | DNA |

<213> Homo sapiens

<400> 12112

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| ttttttttct | tttttttttt | ttttgagacg | gagtctcgct | ctgtcgccca | ggctggagtg | 60 |
| cagtggcacc | atctcggctc | actagaagct | ccacctcccg | ggttcacgcc | attctcctac | 120 |
| ctcagcctcc | cgagtagctg | ggattacagg | catctgccac | catgcccggc | aaattttttt | 180 |
| tttttttttg | agacggagtc | ttgttctgtc | gccagggtcg | gagtgcagtg | gcatgatctc | 240 |
| ggctcactgc | aatctccgcc | tcccgggttc | acgccattct | cctgcctcag | cctctggagt | 300 |
| agctgggact | acaggcgccc | gccaccgagc | acggctaatt | ttttgtattt | ttagtagaga | 360 |
| cgggggtttca | ccgtgttagc | caggatggtc | tggatctcct | gaccttgtga | tccgcccgcc | 420 |
| tgggcctccc | aaagtgtctg | gattacaggc | gtgagccacc | gcgcccggcc | gcaactctct | 480 |
| tttttcattc | agcattgttt | tatgagagtc | atccagggtga | ctttgtgtca | tgttcattta | 540 |
| ttttaactgc | tttatgaaat | tctcttgtgt | gaatacatga | ccacagtccc | ttctcagcaa | 600 |
| tgctaaaaat | ctaaacatct | ctgaaaccac | agtttttggg | tttgttttta | acctatttgg | 660 |
| tggccaaaac | ctcaccagggt | aaagtttaat | agcctctacc | acttagtata | gatacctaac | 720 |
| acatttcagt | gaagaaataa | cgtctgatga | tggggagtg | cccaaacc | cagtgaggct | 780 |
| gttacatggg | aaattgtgcc | aaataatcgt | tgtacattga | agaattctga | attccaaaac | 840 |
| ccatctgccc | aagggtttta | aacatgcagt | tctgtgcgcc | acagtccctt | ggtccacgct | 900 |
| gctgttgaat | gaacgctcag | gtgggtggct | tccacattcc | tgccgctttg | aacggtgctt | 960 |
| ctgtgaacag | cgttgtctgt | gtttgttgca | tcttggtgag | tttttctaga | atataaatgt | 1020 |
| attaaagta | gaattgtctg | gttgtaggga | gcacacatgt | tcagctttgt | aaggagtacc | 1080 |
| agattgtttt | tgtagcacag | tccgttctcc | tgataccaga | gtagaaaaag | ttgaagtga | 1140 |
| cttattcttt | gctaagcatt | ggcattctca | gtctgtggg | tgtcccacgg | cagcgttgct | 1200 |
| tttccgtaca | tgtcagtggt | gggattctcc | ggctcacagc | tcttccagcg | ctgccctctg | 1260 |
| cccttggagg | agcatctaaa | cccctccctc | agctgttatt | tttttctctg | agaaataaat | 1320 |
| cagaatgagt | tatgcagaaa | aaccgatga | aatcacgaaa | gatgagtgga | tggaaaagct | 1380 |
| caataacttg | catgtccaga | gagcagacat | gaaccgcctc | atcatgaact | acctggtcac | 1440 |
| aggtaatggc | ttacagtgag | gatgctgttg | catgaatgtg | attctccctt | tttgaacaca | 1500 |
| taaggagtgc | tgtagcactg | aggtttgatg | acgtagtatt | ttgtgttcag | acattatgaa | 1560 |
| aacacaatgc | taacctggta | agtttggaag | ttatcatgtg | aaagcctttt | ctgaagatga | 1620 |
| gattttttca | ggctctctgag | acctaacaca | aaccattttt | tcagcctttg | acagttttac | 1680 |
| agttactcaa | aataattgag | actgtttgtga | agtaagtata | ttgaaagcct | aaatagtgtg | 1740 |
| tctcttctgg | ccagtctgca | aaaatatgct | ggcctgtttc | tggaaagtat | gcccactca | 1800 |
| gaggatggga | atggggaaga | gcagaagcgt | gcagagggga | ataacagtca | ggctgttctt | 1860 |
| gatgtcaact | ggaggaagg | cagtgtctga | tatggcaaga | aaatagatgt | ttttaaaaga | 1920 |
| catgacatga | aaaatctccc | tccgtgttagt | ccccagttcc | ttctcccaaa | ttaatctctg | 1980 |
| tgaaactttt | ttgggcccaag | catggtggct | catgcttata | gtcccagcac | tttgagagac | 2040 |
| agaggaagat | tgttcgcgcc | taggaattcc | agaccagcct | gggcaacata | gtgagacctt | 2100 |
| gtctctacaa | aaaaaaaaatg | ttaattagct | ggagtgggtg | gcttgtgcct | gtagtcccag | 2160 |
| ctacttggga | ggctgaggtg | ggaggatcac | ttaagcccgg | aaggcggagg | ttgcagtga | 2220 |
| ccaagattgt | gccactgcac | tccagcctgg | gagagtga | gggaccccat | ctcaaaaaaa | 2280 |
| atatttttgg | aagggtgaaga | ggaaatttag | gcctataatt | atgtcagggg | caggggaagg | 2340 |
| ggcacacatg | ctggctttga | aaaattgtag | acactcttaa | gaggtgggag | tcaacaggcc | 2400 |
| actgcaggta | tagctgacca | tggaggggcc | ctgtgctgtg | gaggctgagc | cagtgtgact | 2460 |
| tgcctaacct | ggcaccagag | ctgcggtctg | tggcgctctg | acctattatc | tgctctctca | 2520 |
| aaggagccca | caccaacaca | ctgggcccagc | agccattctg | acctcttttg | ctaattgggtt | 2580 |
| agagtttttg | gatgggataa | caaggaatga | agtatactct | tctcattttc | tatatgtatt | 2640 |
| ttgagagcat | aacttgtaaa | ttataaagat | attaataccg | agttcctgag | aaagtgtggt | 2700 |
| tcacatcaga | ggttattaat | tgaggcaatt | ggagtttctg | gagatacaaa | gtctttgcct | 2760 |
| taatttccttg | ctaactttcc | tagcagtga | gatgggtttt | ctattcagag | ggctttaagg | 2820 |
| aagcagcgga | gaagtttcga | atggaatctg | gaatcgaacc | tagtgtggat | ctggaaacac | 2880 |
| ttgatgaacg | aatcaagatc | cgggagatga | tactgaaagg | tcagattcag | gaggccatcg | 2940 |
| ccttgatcaa | cagcctccac | ccagagctct | tggacacaaa | ccggtatctt | tacttccatt | 3000 |
| tgcaggtatg | tttcaggaga | gagtagtctg | gtttgtgaat | acttgataag | ttaaagttat | 3060 |
| ttgcaatgat | tgagaaataa | ctaggcta | ttgctttaat | aatgttattt | caatgcatgt | 3120 |
| gagggggaga | ggtttgagtt | tgctctttta | tgtagttcag | aagcggtttt | ttgttttaaa | 3180 |
| aatgcaaatt | tgataactca | gagatgcaag | aaaagctctc | cctctgtgat | gtacttttga | 3240 |
| ttgggacctg | gtaccacctg | ccctaagtcc | ctggcctggg | tgtgtggggg | tcaagcttgt | 3300 |
| ctgtctctgc | ctccagcaac | agcattttgat | cgagctgate | cgccagcggg | agacagaggc | 3360 |
| ggcgctggag | tttgacacaga | ctcagctggc | ggagcagggc | gaggagagcc | gagagtgcct | 3420 |
| cacagagatg | gagcgtaccc | tggcactgct | ggcctttgac | agtcccagg | agtcgccctt | 3480 |

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|------|
| cggagacctc | ctccacacca | tgcagaggca | gaagggtggg | cctgccagag | ggaagctttc | 3540 |
| ttccattccc | catgtgctct | gagggggcct | cgtgacaacg | ccaagtgtgt | ggcttttgcg | 3600 |
| tgtggactga | gagacagggt | gcttctgtgc | ctgggatgct | aagtggttcc | ttcatggcct | 3660 |
| tttttttttt | ttttggaggt | gaagtcttgt | tctgtcgccc | aggctggagt | gcagtgaaga | 3720 |
| gatctctgct | cactgcaacc | cccgctcct | gtgttcaagc | gattctcctg | cctctgcctc | 3780 |
| ccaagtagct | gggactacag | gagtgtgcc | ccacgccag | ctaagttttg | tatttttagt | 3840 |
| ggagatgggg | tttcaccata | ttggccaggc | tggtcttgaa | cccctgacct | caggatgatcc | 3900 |
| agtctcccaa | agtactggga | ttacagggtg | gagccatcat | gctcagcctc | tctctggcct | 3960 |
| ttaatctttt | atcttgtcaa | actagggaca | acggacttgg | tgatcgttac | acagtattca | 4020 |
| caccctttgc | tggtgtctta | tatttatctg | aaccttcttt | ctgtttatgt | cccaagtatt | 4080 |
| tctcatttaa | aatcctgtct | tctgaaactt | ttctctcctc | gctgctatgt | ttttgtctgg | 4140 |
| cagaacatga | cagctcctcg | ccttcccaga | cccagggtccc | tcttcccccg | ggctcctctc | 4200 |
| cgggggctct | gtcctcccta | cgctgtcttg | gaaggatggc | ctgtcctaga | gtccacttga | 4260 |
| gatgttttct | tgaggcttgg | gaggagggtg | ctggtatgtc | ctgctacgct | ggctcttacc | 4320 |
| ctctcccagt | ccccctagca | ctttgttcaa | ggcttgcctca | tggcacttaa | ctgccatcga | 4380 |
| ggttgcatgt | gacgtttaac | aaccagactg | tgagcttccc | caggcaagga | ctatgtattt | 4440 |
| catgtcctga | gagtgtctcg | cagttaagag | cttaatgttt | gtttaaactg | cctcttttta | 4500 |
| atagactctg | ctgggtgctct | gcgtgtatgg | tggtttttat | cagatgtatt | tatattctag | 4560 |
| gtgtggagtg | aagttaacca | agctgtgcta | gattatgaaa | atcgcgagtc | aacacccaaa | 4620 |
| ctggcaaaat | tactgaaact | actacttttg | gctcagaacg | agctggacca | gaagaaagta | 4680 |
| aaatatccca | aaatgacaga | cctcagcaag | ggtgtgattg | aggagcccaa | gtagcgctcg | 4740 |
| cgcttgctg | gtggatccaa | caccagccct | gcgtcgctgg | acttgcctca | gacagcctg | 4800 |
| cgactgcaag | attcttactg | cagtagagaa | ctctttttct | cccttgtact | tttttttgac | 4860 |
| ctggcatctt | tttatagggg | aaaatggcct | ttgtaggcag | tggaaaactt | gcaaggaaag | 4920 |
| ctgccgtctc | tttggcagtc | tgatgcagag | cctgcactct | ggcactcgct | gaagaatctg | 4980 |
| gaaggttgct | gtttgtctct | ccagtgttct | ggggcctctg | gctgctgaag | gattcggtct | 5040 |
| accacggagg | gctgtgctgt | taggctgcat | cccactcaaa | atacaggaaa | agcacgaatc | 5100 |
| atgattctgc | tttctgttag | cttaggcaga | cattgggcct | tcacctacaa | gtttttcctt | 5160 |
| acccctgtgg | tttttgtgtt | tttttttttt | tctttttcca | taggaaagaa | tatataaatt | 5220 |
| tgtaaatcct | aattcaaaga | tggtcctatg | gtgagggcat | tgagtttgat | ttgttttccc | 5280 |
| tttggctctg | gttgtgtggc | ttttgggggg | tgctgtgtag | ggggctatgt | gttttttaat | 5340 |
| tttttaataa | tatatatttg | tgctgtgtgt | ggtaaagagc | ttgttcctag | tggatcaaat | 5400 |
| aaccatctct | tctgggcagt | tttgttgaaa | ataaagggtt | ctctttgatt | tcaagaatga | 5460 |
| ccaaaatggc | ctctaaaaga | tgtaaatcat | ctcaaataac | cttttgtctt | tggggcgctt | 5520 |
| ttccccctgt | gatagcggca | gtggcttttt | ctggtacctg | cagctggaaa | ggccacttgg | 5580 |
| ccctgtgctg | agtgagcggc | cttcattaga | gcgaggcagc | ccttggccgg | tggggacgca | 5640 |
| gagccccagc | aggtggtgca | cgactgttgg | cggaaggaaac | gcgtgttcat | cctcagtgat | 5700 |
| ctgccctcca | gcattctggc | agcatctcat | cctccatcgt | cagctggctc | tgccgatgtc | 5760 |
| ctgcttctgt | tcactcacag | aactgtcccc | tgctccgtgg | tgggcaggag | ggaagtgggtg | 5820 |
| cagggctcgc | tgcattgcct | gcgagtccgg | acagttgatg | ggcacatggc | cttgtagctc | 5880 |
| tgggcacaga | tgtgtttgga | ttcatctcag | cggaccacgc | ggcactgttg | accccatga | 5940 |
| gcagtgtctaa | gtgttggttt | agtggatgtt | cgtggaattg | ctgacctatc | caaggcgctc | 6000 |
| ctttggagcc | agtggagcct | gccggcgcat | ctgaggggca | gaatgctgct | agcacttgaa | 6060 |
| tctgggatct | cgccttatct | tcaagtagca | aggcatctcg | acaagcatgg | tctaggtctg | 6120 |
| gtggccagct | tgccagtacc | tgagccgggc | gggtcatctg | cctctgaggg | accgtcctca | 6180 |
| ccgagctcct | gcattccctg | agtgttgatc | aggaggcgtc | cacagcattg | ttctcgctc | 6240 |
| tgaatgatgc | ttctttctgt | gttggagcct | ggcgaagtgt | tgttttcaag | ccctctactt | 6300 |
| ctctttccag | tgggtaggag | cttttggcag | tgtttacttt | acctagatgg | cttatataat | 6360 |
| ccagtaagag | atgcaaagat | aaaattgctg | cggttgctac | agaagcatgg | cggcctccag | 6420 |
| actgacccat | tggttgccct | ttagattttg | taaggatgcg | gtgctgggga | ggtggtgctt | 6480 |
| ccctaccccc | tagaaatgct | gccttccaac | taccactctc | ccagatgtga | cccttgcgat | 6540 |
| tatttctctt | gaggtttgag | gatgaagata | agttggaggg | aaagagagta | actaataggg | 6600 |
| gatgaaatat | agcagaagct | agaagaaagc | ggtgaggtga | gagagatgca | tctgcacgtt | 6660 |
| ttcttcaaca | gcaccagggt | attcagcata | ttcctaatta | cctttcacta | ttcgtgtata | 6720 |
| taagatcggt | tacttgcata | atatatcatc | aattttgacat | attcttaaaa | ctagaggggtg | 6780 |
| tgagaagcac | agcaatagga | agtctctcca | caaactaggg | gaacacaaat | ggggtcatte | 6840 |
| acgtgcctgg | actgtcacta | tgtggctgtc | acgtgaagtg | ctggtgttga | tttccatttc | 6900 |
| agccagtctg | tagctgataa | gccagtggca | gcactccagca | tgagcagatg | tcggggagac | 6960 |
| tgggaagtct | ccagcggttac | tgctctcctt | cccttcatga | taagccagtg | ccagcatcca | 7020 |
| gcgtgagcag | acgtcgggga | gactgggaag | tctccgatgt | tactgcctgc | cttcctttcg | 7080 |
| tgtgaggggc | tgcacttgct | tttcttgtga | tctgttagtg | gacgaggtct | tccaaggaag | 7140 |

<213> Homo sapiens

<400> 12115

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| aggaactcat | ggaggctgac | aggggagcga | tggcaccaca | gcagtttcta | atttaagagc | 60 |
| aggtgccgat | aagcagtctg | aaaggagcct | tgtgtacaat | aaagtgtatg | agtaagtcac | 120 |
| actgttctgt | atatatgaga | cacacatgag | gaattttctg | gagctattaa | tacagttcct | 180 |
| gaatgttctg | aatttttttag | agatccttct | catgaaaaaa | cttttttcaga | ttgatagggt | 240 |
| atatgattgg | aaaaagagtc | ctgactctga | tgtggctgct | acttttaaaga | agcagaaaaa | 300 |
| gaatacaaaa | gatgaatttg | aggagcgagc | aaaggctatt | attgtagaat | ttgcacagca | 360 |
| ggtaagaagg | ccttccttct | ttctgaagag | cctatctcag | aatatgtatt | atattatctt | 420 |
| tataatgaag | tcagcatttt | cattaatact | ggttcctttc | ctctgttgac | agcaattact | 480 |
| ttttttaaat | tcttcttccc | ttttctcctt | tttctttgca | gtctgaatac | tttaatttag | 540 |
| aaaactgagt | tgacttagaa | ctactttgct | ataatacagt | taatgcttat | aggatataca | 600 |
| tgatcatttt | tagtgtttat | gaggagtttc | aaaatgatga | gccatttgct | catccggcct | 660 |
| ctagtgaggg | acacctattc | cagatacggt | ttctttacag | cctggcattt | tgatgatttt | 720 |
| ttgtccttag | ggtttgaatg | ctgctttgtt | ttatgagaat | aaagatcccc | gcacttttgt | 780 |
| gtctttggta | cctacctctg | cacatactgg | tgatggcatg | ggaagtctga | tctaccttct | 840 |
| tgtagagtta | actcagacca | tgttgagcaa | gagacttgca | cactgtgaag | agctgagagc | 900 |
| acaggtgatg | gaggtaatga | tcaacttttc | agtttattgt | tttttttttt | tttaaaaaata | 960 |
| gcaagttcct | tgagtggagg | atatttacta | cttttagatt | taatgaacat | ggtgcattgt | 1020 |
| atgtatgtct | ttctctttgc | attaatgcct | tttaggttaa | agctctcccg | gggatgggca | 1080 |
| ccactataga | tgatcatctg | atcaatgggc | gtttgaagga | aggagataca | atcattgttc | 1140 |
| ctggagtaga | agggccattt | gtaactcaga | ttcagagcct | cctgttacct | cctcctatga | 1200 |
| aggaattacg | agtgaaggta | tgctgagggt | ggaagcattg | acacgtgggg | acttgtacag | 1260 |
| tgtttagaag | ttctgctgag | atggtttctt | cactttgaaa | gctgtttgac | ttaatacaga | 1320 |
| acacatacat | ccctcgctct | cccttttatt | ttagttgtca | tcatacagga | aggcctgtct | 1380 |
| gtcagagtag | agatgtgtga | aagtacctgc | ttaccagact | gggcctttgc | cagattctaa | 1440 |
| actacactgt | tatggttcta | cactgctaaa | tacggttgac | tcttgaacaa | catgagggct | 1500 |
| aggggcactg | actccctggc | cagttgaaaa | tccacatata | tttttttgact | ccccaaaaac | 1560 |
| ttaactccta | atagcctacc | attgaccaga | agccttacca | atcacatata | cagtcgacta | 1620 |
| acatgttttg | tatgttttat | atattacata | ctgcattcct | acagtaaaac | aagctagaga | 1680 |
| aaagaaaacg | tgattaagaa | aatcataagg | aaaatagatt | tactatttgt | taagtggag | 1740 |
| tggtatcatc | taatggctct | cattctcatc | ttcatgttga | gtaagctgag | agggagaag | 1800 |
| gagaggggta | ggccttgctg | tgtttggttg | cagaggcaga | agaaaaatctg | agtataagtg | 1860 |
| gacatatgca | gttcaagccc | attttggtca | agggctcagct | gtagtttttt | aacattttta | 1920 |
| attgtgaaat | aaaacattgc | tcctgaaaag | tacacacaac | atagaagaaa | agtttaacac | 1980 |
| atttttggga | agcaaccaga | tggagaatca | gaacgctgct | ggcaccagga | agcttcctgt | 2040 |
| gtgcttcttc | ctgatcaact | cccctgcctt | cccctcctac | cccctgacct | ttcatagagt | 2100 |
| taaccatggt | tgcattttat | gacagtaaca | aatatccttg | ctttgctttg | tttttgtgtc | 2160 |
| taagagtact | tcccttagaa | gtgtctgtag | actttatgta | gaaatggagt | tattctcagt | 2220 |
| gtgtactttt | atagctggct | cttttttttt | tttttttttt | ggatgagggc | tctcactgtc | 2280 |
| accagggtg | gagtgcagtg | gtgcagtcac | agttcactgc | agcctcaacc | tccccggggg | 2340 |
| tcagggtgatc | ctcccacctc | agcctcctga | atagttggga | ctataggtac | gcaccaccac | 2400 |
| acctggctaa | tttggtttaca | gatgggactt | tgtcatgttg | cccaggctgg | tcttgacctc | 2460 |
| ctgggctcaa | gcaatccacc | caccttgatc | tcccaaaagt | gctgggatta | taggcatgag | 2520 |
| ccaccatgcc | tggcctatat | ctggcttctt | ttagtgaata | aaaaaaagta | tataatttta | 2580 |
| agatttctat | tccattgtgt | gactatatca | caacatatct | atctgttctg | ttgatgggaa | 2640 |
| atgtagggtga | tctccagttt | tttatgttta | ttttatttta | ttttattttg | agatggagtc | 2700 |
| tcagtctgtc | atccaggctg | ggattacagg | tgcacgccac | cacaccgggc | taatttttgt | 2760 |
| attttttagta | gaggtggggg | tttgccgtgt | tggccaggct | agtctcgaac | tcctgacctc | 2820 |
| agcctcccta | agtgaaccac | cgcaccgggc | ccagtttttg | atttttgttg | ttactaataa | 2880 |
| tgctgctgct | gtgaacatct | cttgatgtgt | ttgtgccagt | ttcccagggt | atgtatacct | 2940 |
| aggagtgaag | gccacacttg | tctacagtgg | gtgtaacaaa | ttatattctc | aactgcagta | 3000 |
| ttttagtttc | attgttttac | agcttcatca | gttcttggat | gttaggtttt | aaattttttt | 3060 |
| tgccattctg | ctaagtgtgt | agctcattgc | cgtttcagtg | tgcatttgcc | taattgttaa | 3120 |
| cctggttggt | catttaaaaa | tgtttatgtg | ccatttatct | cctccttcgt | gagatgtaca | 3180 |
| tttttcttct | gcattatctt | tcttacagat | ttatatgcgc | ttatatattc | aggataccgg | 3240 |
| tttggttagtt | ggtgtgtttt | gcaatatctt | ctactcttgt | gacttttttt | ttcctgtggt | 3300 |
| attttgagaa | atggaaatat | tttaatttta | tgttaaattt | atcagtcttg | tgattattgc | 3360 |
| tttttggtgc | tcgtttaaga | aacctctctc | taatatcatg | atgagattct | cttatatcat | 3420 |
| cttctactgc | taaccacttt | ttaagtacat | ttggtaacaa | atgtttttat | ctctgtagaa | 3480 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ccagtattgaa | aagcataaag | aagtagaagc | agctcagggg | gtaaagattc | ttggaaaaga | 3540 |
| cctggagaaa | acattggctg | gtttaccctt | ccttgtggct | tataaagaag | atgaaatccc | 3600 |
| tgttcttaaa | gtaagttcat | ttaaaaat | ttttccttaa | aagctatttg | agttctggca | 3660 |
| tgtgtcagca | ttgcacatgc | tagggatggg | gaccaaact | ggctttgtct | ttgtgaagcc | 3720 |
| tgccatttct | tggcctctta | gcaaacttga | tgcctttgaa | ttacttcagt | ttgtacaatc | 3780 |
| atagaaattg | gtataat | tatatgtact | agaattataa | aaataatgca | ttttattcaa | 3840 |
| ataaaaaaat | gagtcaaaaag | ctagaagtcg | gctgggcatg | gtgaatgcac | acctgtagtc | 3900 |
| ccagctactt | gggaggctga | ggcaggagaa | tcacttgaac | ctgggaggca | gaggctgcag | 3960 |
| tgagccaaga | tcgtgccact | gcactccaac | ctgggtgaca | gcaggaccct | gtctaaaaaa | 4020 |
| aaaaaagcta | gaaattgtat | attccttttg | gcccatgtcc | attgtagttt | cataaaagtg | 4080 |
| gacttttgagc | catagtttgt | tcatttgcca | aagagaaaat | acaactgttc | ccagcacatg | 4140 |
| gctcttgtgt | cctggggccg | tgtttattat | ttaggcagca | tcaagtcatg | ctgttgggaa | 4200 |
| taagctatct | tagggccagt | gagagaatag | ggcaggcctg | tctcttcacc | cagtcctgag | 4260 |
| tatggagtgg | acttacgtcc | cttcagtggc | attgataaac | ttgttttact | tatttctggg | 4320 |
| taaaaatctc | ttcttccatt | tcccgacaag | cagtgatgga | ggaaggagct | gctgagatca | 4380 |
| tgagattatg | gtatttccta | gttaacacag | acaagctgaa | cttttgggct | atcataaacac | 4440 |
| attacgttta | tgtgggtactt | ttttaacttt | aaaaaaat | ttcttctcta | ctgtttaatt | 4500 |
| ctgcccaccc | atctactgta | tttgccaagt | ggagcggaga | ttaaacatat | ttcaaagtta | 4560 |
| gtaaacctaa | gacaaagggtg | aagcgaaaata | cagttagggt | atggccccga | aatctcctcc | 4620 |
| ttcattccag | cacaggttct | gtgatgcctt | gctctatcta | agccttagtt | tcataattgc | 4680 |
| agatgagtac | ttaaccaaag | agagaaaacac | aatttaattc | tagactgctg | aggatagagg | 4740 |
| tgtgttgaca | accttatcaa | atctgatttc | ttttcaagga | tgaattgatc | catgagttaa | 4800 |
| agcagacact | aaatgtctatc | aaattagaag | aaaaaggagt | ctatgtccag | gcactacac | 4860 |
| tgggttcttt | ggaagctcta | ctggaatttc | tgaaaacatc | agaagtgcc | gtaagtaact | 4920 |
| acaactcgct | ccacaagtga | atgggtggtg | gtcgtggttt | ttgggtgcat | cgccattacc | 4980 |
| tgatacatac | agataaacat | ggaaactccc | attttttcag | tatgcaggaa | ttaacattgg | 5040 |
| cccagtgcat | aaaaaagatg | ttatgaaggc | ttcagtgatg | ttggaacatg | accctcagta | 5100 |
| agtaatttct | cttgctatga | aggctttcat | gttacgtagc | tatcttaaaa | ctgtcctatc | 5160 |
| ttaaaaaact | gtcctctgtg | acatactctg | tttttcaactg | aatgggtctt | gatgtgtttt | 5220 |
| aaccttttag | gtatgcagta | attttggcct | tcgatgtgag | aattgaacga | gatgcacaag | 5280 |
| aaatggctga | tagtttagga | gttagaattt | ttagtgcaga | aattatttat | catttatttg | 5340 |
| atgcctttac | aaaatataga | caagactaca | agaaacagaa | acaagaagaa | tttaagtaag | 5400 |
| ttactgtttt | tatttacttt | gagtccttgt | taatgaacat | gattgagaat | tactgaattc | 5460 |
| cagaaagggc | tgtaaacagc | aaaatcatgg | catttactca | tctaccagag | gctgcatcct | 5520 |
| gaaatgggtg | gttacaaccc | agaaacccaa | catactgggg | acattccagc | agtatgcaaa | 5580 |
| caagtcttgt | ctgtgacttc | agtttaataa | tcttggcaga | cttgggtctt | gttaatgggt | 5640 |
| tcgtagttat | taaatgtagg | gactttatgt | tgctcatctg | ggattatata | gattggaagt | 5700 |
| aacaaaactt | gagtgaggaa | aaccgggaaa | taagagattc | tgtggggagag | aagtccattc | 5760 |
| ctctaccaaa | ctttcactca | agcactcaca | gtacctacat | tgctgcagtg | gtagaggagg | 5820 |
| catcagcaga | gaaccaggcc | agcctccctc | ctcctttccc | tttgagacag | ggtctcgttc | 5880 |
| tgtcacccat | gctgcagtac | agtggcatga | tcatgggtca | ccccaacctc | tgctactatg | 5940 |
| gctcaagtga | tcctcccacc | ttggcctccc | gagtagttga | gactacaggc | tcacaccact | 6000 |
| atgcctggct | aattttttgt | atttttggta | gagatagggg | ttcgccatgt | tggccaggct | 6060 |
| ggctctgaac | tcctgagctc | aagtgatcca | cctgcctctg | cctcccaaag | tgctgggatt | 6120 |
| ataggtgtaa | gccactgtgc | ctgggtctggg | acatgctctt | attgcaggac | aattgacaca | 6180 |
| tgttgagaag | tgctgaaaaa | ccaaataaag | caggggaagg | cctagataag | gagaggagg | 6240 |
| actgtgatta | atgatgtggt | ttgggaaggc | atctcacctc | ttcagacaga | gtaagccaca | 6300 |
| caggcacatg | gggagtgtcc | agagagaaca | gcagtgcgag | gcagagtgc | cagaagggac | 6360 |
| agtataaat | gaggtcagag | aggggtggcag | gacctgtatc | gtcaaggatc | ttacaggcca | 6420 |
| tgggagggat | tgagcttctc | tgagttttgc | aagaagccat | tgccaaggct | gtgtgttcac | 6480 |
| aatcagactg | gttaattggg | ttgttatgtg | gaccttgggt | tgtaggaag | tcagtggcaa | 6540 |
| gagcctgtca | ggaggctccc | acagtccaag | caagaggtct | aggtgattca | gaccacagtg | 6600 |
| atgataggag | tgatggcgta | gtttgggata | catttttaag | tggagcttac | tagtaaatat | 6660 |
| taggatttag | actggtatat | gctcacttta | gatcatgaaa | cctgaagtga | gaagaattct | 6720 |
| acttaacaag | actgctggaa | acttttaagg | catttttaagc | gtgtgtctca | taagcagggt | 6780 |
| agttatgtag | tggccttttg | gatcaatggc | ttgggaacgt | gggtggagaa | aggagggtga | 6840 |
| taatacggct | tgatgcctat | gtgatccccc | atagcctac | atatgtgcct | aacgaagacc | 6900 |
| tgctgtcac | caggtactgc | ctaggttcta | agccccagac | tgtggctgac | atcttcagca | 6960 |
| gccaagctca | gtgtttttaga | ctaggaacag | aatgctcctg | tgatgcagct | tcttttggag | 7020 |
| gtagggcttt | aaaagagaag | aaagcaaaga | cttgggaagc | aacagaatgg | ggaggaggag | 7080 |
| gttaagaaca | aggaagaagc | gctctgggca | tgggggtggcc | ctgggctgca | gcaccctgcc | 7140 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|-------|
| tgccccctctc | ctgtggccgc | tggggaaagc | tgctttcctc | taatgggaga | agcctgatgt | 7200 |
| tcagctgcag | tttttctttt | tatgtttaag | tgattctgta | agcttaaaat | tcttttcttt | 7260 |
| tttccttttca | ggcacatagc | agtatttccc | tgcaagataa | aaatcctccc | tcagtaacatt | 7320 |
| tttaattctc | gagatccgat | agtgatggg | gtgacggtgg | aagcagggtca | ggtgaaacag | 7380 |
| gggacaccca | tgtgtgtccc | aagcaaaaat | gtaagttcta | ggtgtacatt | ctgtgggtca | 7440 |
| tttcttaaag | cactaaatga | gtgtccaaga | gtcgtacca | cacagctttg | tgccctgtagt | 7500 |
| tcacagtact | gtgctgtgta | tttagtgtgg | tctccacctt | cttaacaaat | gtttcagtgt | 7560 |
| ttttacctca | gtaggaagaa | aatgtggtaa | ctttaaaaca | agcagagcct | gtcaccttct | 7620 |
| gttgtgcttc | agtattggta | aatatcagtg | ctccatagtc | agtgttgact | cagtgtgat | 7680 |
| ctcagtgcct | cagttaattg | gggctccaag | gcactttaca | ttattgcctt | ttattttatt | 7740 |
| ttgaaagggt | tcaagcctgt | ggaaaagttt | aaaaactagt | ataatgaaca | ctcatgttta | 7800 |
| ccttcccttt | ctgtcagcat | acctaagaaa | aattaataat | atttcaacaa | tatcctataa | 7860 |
| tttgcagccc | tcaacattat | ttcaccagtt | attccaaaga | tgttttggta | actctcccca | 7920 |
| ccaatctggc | ccagtgccct | gcaagctgca | ttgcactggg | gcttgttttg | tggtctgagcc | 7980 |
| tcagtcaaga | acagtcctcc | attctttttg | aagtgtccct | gttgttttgc | aaatccctcc | 8040 |
| tccatttggg | tttatctggt | tctctccctc | ccaactagac | acaggttaga | attattggaa | 8100 |
| agacactcat | gcagtttccc | tgtgtgcctg | cctcttgcat | gacccagcct | gtctgactgc | 8160 |
| tgctgatgct | ctgatttccct | ggggaaagtg | ctagacgcca | accatctcca | ttagaaactt | 8220 |
| gccccctttat | aattactctg | taatctgtct | ggtacctgga | gttcctaattg | gatatcctgt | 8280 |
| ttctcaacag | cctttatccc | agtgccttta | gtacccactg | gcaagcgttg | cctaagtcaa | 8340 |
| ctattacgta | gatggttgca | aaattgtgga | tatacctgtc | ccccattttc | ttacaaagaa | 8400 |
| cctcttccca | ctgacctttt | tattgagtca | tagactcagt | gggttttttt | ttttttaata | 8460 |
| taatccatta | cctttattct | tttgatactc | agattttcta | ttgtgggtcag | taggagctca | 8520 |
| actggctcct | gtatccttga | cacacagcag | tctgagcatc | atcttccttt | ctgggttgaga | 8580 |
| tgttccagcc | tcatctagta | ctttccctgg | cccaaacctg | gttcttgtaa | tgggcaatgg | 8640 |
| cacttagaag | ttgtcattgc | ttttctacca | tttcagtggg | ctaagcctgg | acattttattt | 8700 |
| gtgttacttt | ctatgtggct | ttggcctcct | aaaccaacca | gagctctccc | tgttttcact | 8760 |
| cttactctcc | tgaatctttt | tctccacaaa | ggagtcaggg | ttttttgccc | caaactctga | 8820 |
| gatcacatca | ctcatctgct | cacaggccat | cattcttaaa | atttcaggat | tggtcctcac | 8880 |
| tctgacttca | ttcccatcag | ccacttcaag | ctcattcctg | actcagaccc | tttgtgcctg | 8940 |
| ctgatccctc | ctattacggc | acctgtcacg | tgaaatggta | gagcaaaaat | aggaaatgac | 9000 |
| attgggtcaa | cagggcactt | ggaatgtttt | gcaaagcaca | ttatctcctg | tcattcttac | 9060 |
| aaccatcatg | aagggaatag | ggtgttggtg | gtgccagcct | agttttacca | aatgtttacac | 9120 |
| cgtgagtgat | gaaaggatcg | cactgccatg | acttttataa | caggcttttg | ctctagtctt | 9180 |
| tacttcagct | atccagccat | ggcgctgtg | attggcatga | attcttctgc | atgcatttta | 9240 |
| atttgttctt | attttatagt | ttgttgacat | cggaatagta | acaagtattg | aaataaacca | 9300 |
| taaacaagtg | gatgttgcaa | aaaaaggaca | agaagtttgt | gtaaaaatag | aacctatccc | 9360 |
| tggtgagtca | cccaaaatgt | ttggaagaca | ttttgaagct | acagatattc | ttgttagtaa | 9420 |
| ggtaagtatt | tcagcaaaag | tggcacactt | taagcaacag | ggaatcactc | ttcttgggtc | 9480 |
| acctgtacct | gtagctcctt | gggcttcagt | ttgattgtag | aatctgatgg | gactggatcc | 9540 |
| cccattaggg | cttgacctct | agctgggcct | tgtctgttga | ggaagtgtgt | ctatcaggaa | 9600 |
| agcagcacca | acagagaaag | ctaggacttt | taggtccctt | cgtgcctgac | atgcaaacca | 9660 |
| gatgtgattt | tggaattcta | ctcccttagg | caggcaagcc | ctgtttttta | tttctgctta | 9720 |
| agcttttttag | tacagtgaga | gcgggcacat | ggggccacag | ctttcttttg | cacgtttggt | 9780 |
| atgttctggt | taccctgttt | gtgcctcggg | cattgcagat | cagccggcag | tccattgatg | 9840 |
| cactcaaaga | ctggttcaga | gatgaaatgc | agaagagtga | ctggcagctt | attgtggagc | 9900 |
| tgaagaaagt | atttgaatc | atctaatttt | ttcacatgga | gcaggaactg | gagtaaattgc | 9960 |
| aatactgtgt | tgtaatatcc | caacaaaaat | cagacaaaaa | atggaacaga | cgtatttgga | 10020 |
| cactgatgga | cttaagtatg | gaagggaaga | aaataggtgt | ataaaatggt | ttccatgaga | 10080 |
| aaccaagaaa | cttacctggg | tttgacagtg | gtcagttaca | tgtccccaca | gttccaatgt | 10140 |
| gcctgttcac | tcacctctcc | cttccccaac | ccttctctac | ttggctgctg | ttttaaagtt | 10200 |
| tgcccttccc | caaatttgga | tttttattac | agatctaaag | ctctttcgat | tttatactga | 10260 |
| ttaaatcagt | actgcagtat | ttgattaacc | aagcttctgc | agattttgtg | attcttggga | 10320 |
| cttttttgac | gtaagaaata | cttcttttatt | tatgcatatt | cttcccacag | tgatttttcc | 10380 |
| agcattcttc | tgccatattg | ctttagggtc | tttataaaat | agaaaattag | gcattctgat | 10440 |
| atttcttttag | ctgctttgtg | tgaaaaccatg | gtgtaaaagc | acagctggct | gctttttact | 10500 |
| gcttgtgtag | tcacgagtc | attgtaatca | tcacaattct | aaaccaaact | accaataaag | 10560 |
| aaaacagaca | tccaccagta | agcaagctct | gttaggtctc | catgttagtg | tagcttctct | 10620 |
| cccacaagtt | gtcctcctag | gacaagaatt | atcttacaaa | ctaaactatc | atcacactac | 10680 |
| cttgatgcc | agcacctggt | aacagtagag | attttttatc | attaatcttg | atctgtttta | 10740 |
| atcttgatct | gttttagtag | agatttttat | acattaatct | tgatctgttt | taatcttgat | 10800 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ctgtttttgtc | ctagaaaatt | ccatcataca | cacatttcct | gatattttggg | cttagtgctt | 10860 |
| ctaaattgtt | gcagacacaa | aacttaatga | ttcatttcgta | gtagtaatct | gtagctagtt | 10920 |
| ttagggtttt | gctgaagtca | gtgtggggtg | tttgtttgag | gaaaaagttc | caaatatcca | 10980 |
| ctagcataga | attttaaact | atttttattt | taaagttatg | gcataacata | taacataaaa | 11040 |
| atattttata | tacgtttgaa | aaatctatac | cgttcttttt | tatcatcaaa | gtttctcaat | 11100 |
| ggccagtaga | agcaaaaaga | caacaccacc | tctgatctac | gggacataat | gttcccagga | 11160 |
| aaaaaatctt | caagtgggtg | tgagggtggt | tctaattcaa | aatatgtaga | tttctccgca | 11220 |
| tggaagaagt | agtaaagatt | ttcttaacat | gctcctgtgt | tcatgcttgg | agacaagaat | 11280 |
| aagatgggtt | agaagcttta | ccctttcttg | gaacaagtag | aatcccggtc | tgagacctct | 11340 |
| caggaatttc | agagcttagc | agtctggcct | ggaggttttt | cagcctttta | gtataataaa | 11400 |
| cagtagttgc | ttcctagagt | tgagttttta | aggattcaca | aaaaggagcc | tgtacaaaat | 11460 |
| atacatagag | ttctttatta | aacaactgta | aacacttcac | tgtaaaaatc | cataaaactt | 11520 |
| tataaacaaa | cattttgtaa | atagaatcta | tgctacagta | aaataattaa | cacaattatt | 11580 |
| tacatgcaat | actgacaaat | ttggcacttt | ttgaaaagaa | atgtacaaaa | cacttgcttt | 11640 |
| aaaagaaaatt | taaaattata | aaaactccga | gcattactat | catgcacttt | gcaaataacct | 11700 |
| cacaagcact | tatggcacag | ctatcagaga | gcatcaggct | ctctggtaat | atztatgtaa | 11760 |
| cttttaatgt | gcttccataa | gtttgttgta | aaaccacctg | gacattgtca | agaataaagt | 11820 |
| caaagtccat | attccaaacc | gattccaccg | attgctgcat | cagcctaaag | gtggggagag | 11880 |
| aagaaatgtc | attaggaatt | aggaaaggct | cttaagacta | attattcctt | tttatatata | 11940 |
| aaaattgact | ttggcaaaaa | aaaaaaaaag | tcctggccag | gtgcgggtgtg | gctcatgcct | 12000 |
| gtaatcccag | cactttggga | ggccgaggag | ggcggatcac | ctgaggtcag | gagtttgaga | 12060 |
| ccagcctggc | caacatggta | aaaccccgct | tctacaaaaa | atagaaaaat | taggtgggca | 12120 |
| tggtggcaca | tgccataaat | cccagctacc | cgggaggctg | aggcaggaga | gtcactggaa | 12180 |
| cccaggaggc | agaggctgca | gtaagccaag | atcctgccac | tgcactccag | cctgggcgac | 12240 |
| agagtggagc | tccatctcaa | aaaaaataaa | atcctagaac | actcaaattt | ttttttattt | 12300 |
| tgttttgaga | caagctgtcg | atcaggctgg | agccatgcag | tggtgcaatc | atggttcacc | 12360 |
| gcagcctcca | cctcccaagt | aactgggacc | acaggtgggc | accaccacc | ccccagatta | 12420 |
| tttatttttt | gtatttttca | gtagagatgg | ggttatgcca | ttttggccag | gctgggtctc | 12480 |
| aacgatccac | ccaccccagc | ctcccgaagt | gaagtacagg | cgtgagccac | tgtgcccagc | 12540 |
| ccacttccta | tggtttttta | atcacatgta | agaccttgag | ggcaacatat | ttggaacctt | 12600 |
| atttgctact | tagtcaacat | ggcaaaaata | aggatatcac | tttctcatta | accctaata | 12660 |
| gtacagtttc | ccagaaagtt | taaaacaact | cagtaacacc | tcagccattg | tgacatgcca | 12720 |
| ttttttccca | tttgataaaa | gtgatgaatt | actacctttt | catgtatttt | ataactagat | 12780 |
| ccagtttttc | caaactcttt | tcttctatta | gatcagtaca | gtattttcaca | acttggagaa | 12840 |
| tgtcttcttc | cattggatct | aggaaggggg | aaaaacttca | aatgaggacc | agtctttttg | 12900 |
| aaggagaaa | tcagagatct | gcatggataa | aggaaaactg | cattttctaca | actatgtcac | 12960 |
| taacagctat | caaaggaatg | ggctttgtta | cttttcaaa | caagtcccag | aatttaaaag | 13020 |
| atttgggggt | agctgcttta | agcttatcag | agttagagaa | atgggttaaa | tctgcatagt | 13080 |
| ttagtctgtt | tatgttctca | aatcatgaga | cgactacatc | tcagccttgg | gccatctaac | 13140 |
| acaggccaag | ccaacctgaa | attgtagtta | tccattctct | gagcaagggtc | ttcacatcat | 13200 |
| tgaattcaac | agctccagct | agattgggtg | ctggaggctc | cacacagcca | gctgggtcag | 13260 |
| actgcaaact | agaaaggcct | ggcacacctg | aagtagaagc | agagagttct | tcctgttaag | 13320 |
| aaaacaaagg | ataaaattgc | tatatccaca | cattatccag | gtatatatta | atctcataaa | 13380 |
| ggtcaaagtt | aaggaattac | caggggtttc | tctgcaggag | gtccttcatg | ttttagaaac | 13440 |
| ccatcaatta | acttctgggg | actgccacag | gcccctggca | gagtttttgc | aggactgtta | 13500 |
| agcagcttgt | tattcaaagg | actctgaatc | ctttttgggtg | aaccaatggt | ttttttcttc | 13560 |
| ttgtttcttt | tcttttcttt | cactgctgac | tttagatgaa | gtaaaggatt | ctttggcact | 13620 |
| aagagcagat | ggatataaga | tcctcaacaa | aatgatagta | tggatagtct | ggatgacagt | 13680 |
| attgggttct | cttttctcct | cccaaataca | acaggctccc | tagcctacac | ctccctcct | 13740 |
| gccccaaagt | agaggcagtg | aatggcaatg | gccccaaagta | caggctctcc | aattctctct | 13800 |
| ttgctttgcc | acttactaat | ttgacctttg | gcatgttgct | catctatgat | gggtagtact | 13860 |
| aaatgtgggt | ttgatgtttg | tgatgcattt | tgaaccaaca | tcctttaatg | tattcatctc | 13920 |
| aaaggacaac | tagctgaaca | agtattttaag | acatttgtgg | taatgtccta | ttccaacttt | 13980 |
| ttaaaaagta | aaaagtgggtg | tgtttaaatc | ctgaaagtac | agacacaaat | ccaactagaa | 14040 |
| atatgatgat | atttactcat | actgtatact | tcagatatta | tcccaatatg | aagagctctt | 14100 |
| aatgcaacag | cttagacttt | gcccattata | tactgcaata | attagacaac | agtgactcca | 14160 |
| ttactctttg | tcttcatttt | tgttacatgc | cacttccaag | gctcaccaga | tgcgctggct | 14220 |
| gactgctggt | gagtgtgtgt | ctcgccctgc | ctttgtcttt | gatcatagcg | tgctttcagc | 14280 |
| tcctcttgaa | gttcagcagg | aagggcagca | aatacctcag | gggtccaccta | gtggaaaaga | 14340 |
| cgaggtcaaa | gtcaaacctg | agctaattgt | agatggtagc | tggtttctct | ttttcacaaa | 14400 |
| acagactttg | ttttcaaact | tcacttttct | gatctgtacg | aattcttaac | agttcccca | 14460 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|-------|
| tatcaaagct | gattaaatct | tcaaaatggt | tagagcaaga | ataaggaatt | aagagcaaga | 14520 |
| ataaggaatt | aagagtacta | acttaaagaa | acccactaca | acagcagaac | ctgggcaaaa | 14580 |
| tgcactagta | gaaaatggga | agcaaaacat | tgaaacaggg | actcagggtt | ttactgtccc | 14640 |
| ccatgcagga | ttatacatct | ccgctctgtt | gtatttcaagt | gtggccattg | atgtgtttgc | 14700 |
| ccagatcag | tgtgtttctg | tcttagcatg | ccctcccccg | tctcttcctt | gctgcttcag | 14760 |
| cgaggagctg | ctctgtgtct | acatcctgca | gatgcaggag | atggagacaa | gcccactctc | 14820 |
| ccctccccct | ccctccccct | cccagtggt | gtggtgtcag | atacagagga | gaaaggggaag | 14880 |
| tgagacaggt | cctaagttgg | agcagggggg | tgagaatatt | gaaactacag | cagaggggttc | 14940 |
| ccatatttaa | cttacctgtg | aaaatgctgg | aagggtctatt | aaattttatt | ctgcgtcact | 15000 |
| gttcgattct | tgaggttctg | gtatttgcaa | caagactgtc | ccaactgggt | gtggcaaaat | 15060 |
| tectgtatta | cagccatttta | ctggttcttt | ctttttgtcg | ccatgtgact | ctgcttgctg | 15120 |
| gacagcacag | acttgctcta | cttggttccc | gagatcaggt | ggaagtgctt | ctaaaacaga | 15180 |
| ctgatccagc | tataaaatgc | caaacatatg | agtaggaagt | taaagcatgc | tcagagatga | 15240 |
| ggtgtttggg | agttaacacg | ccacttttaa | tttcaatttg | aatactgtgg | ataatcaatg | 15300 |
| taaggtagag | accatcaagc | taggaaagcc | acctccaaat | cagcacattt | ttggaacgtc | 15360 |
| ttggcctttt | gtcattgaag | cctgaagtac | tatgtgtagt | ctggaaagaa | gtgtatatat | 15420 |
| actaccagcc | actatcacat | gaccaggtaa | gtccaaatat | actcacagaa | tgtcctgcaa | 15480 |
| ttggggccaa | cagatatgaa | tagccttggt | gaagctcaaa | ttagatccca | ccccagggag | 15540 |
| gggtgaaggc | ctgaggcaca | tgtaaaaatt | ctggacaggt | aacagtccct | ggtcaaaagt | 15600 |
| tcacctttca | gatgagagac | tgcccaaaaa | tacaaataat | tctactctga | gagcagcaca | 15660 |
| ctggaagaaa | gggtttctag | aagctgaatt | ttcttctaact | tacaggacag | aatccactgt | 15720 |
| tectttgggc | agggcctacc | tgtgcatcca | catctggccc | tttggaagaa | tgcaatccca | 15780 |
| tcaactgggt | ggaccaatct | tatcttgcca | ggagtaacta | attgtgggta | tctgtcgcca | 15840 |
| tacaagcata | tcagcattgc | cctttcccc | agttttgcag | ccagtattta | acatctcctt | 15900 |
| ccgctctctt | ccatgcaggg | ggagcagagg | cacaaataaa | cttgcccaat | atagcttaag | 15960 |
| gtgctacctt | actttcaagg | accagcagta | tatcacatgt | acagcccaca | cacgctgaat | 16020 |
| taaaccatcc | aaatctccag | agacctgttt | gcaaatactg | caaaaaccct | tcgacataag | 16080 |
| gcctctactt | caccactaat | caccaaagct | gccttgctga | atacagtaag | tctgcatgat | 16140 |
| gaccactgtc | acagacaatg | gcagtcacaa | ggaggactgc | ctttcagcta | tgctttacaa | 16200 |
| cttgcaagag | tggaatctt | ttgcaaaaag | actttcactc | aaccctaaata | ttgcttattt | 16260 |
| agaatccaac | atcatgatct | acccaacaaa | gtggcccgtt | ctccctttct | tggttaaacy | 16320 |
| gatgaagaaa | taaaaatgcc | attttcattt | gtaaacttgt | atttttgtat | ttatatattag | 16380 |
| gagtataaaa | tgtacttata | tttaggacta | caaaaatgta | cctgggaagg | tgacgggacc | 16440 |
| tctatactca | ggttaagtct | cgactgcaca | ctgacaggag | tatgtagacc | attccatttc | 16500 |
| cctgaagact | cagccttggt | agtatcagga | ctggctggca | gatgtgcagg | aaaaggtggc | 16560 |
| aagaaagtgc | aagttctaga | agcagatgat | atttccagat | ccacagcagc | ccgaaatact | 16620 |
| acaaaaagaa | aatatataaa | atagcctctt | cagatcatcg | ggcagggcct | ttaatcctct | 16680 |
| gtccattaca | aataaaaaaa | ctttattact | gattcatcat | aatgaagaat | ataaattttt | 16740 |
| aaaatcacat | aaagctgtgt | caatttttaa | accaaactgc | gtcttttcaa | ggacataagc | 16800 |
| agcacctaaa | aaagaaccac | attgatgacc | accaaccttc | tttgtgtctc | tcttcggttg | 16860 |
| atttcttagc | tttctgaact | tgggaagacat | cacggacaga | gtatgacca | ctaggaaagt | 16920 |
| ggcttgactg | aactgatggg | cgactgggac | atgtggaagg | gttcagatta | ggttggaacca | 16980 |
| actgattcac | gtgaatccca | acctagaacc | cagaataaag | agtatgcttc | taggaaaact | 17040 |
| aaagtgaaaa | tatgaattca | gctaagcaaa | atcctcagca | aatccttttc | actatctcct | 17100 |
| ggatcctgtt | tctagaataa | aggtaaatga | aagtattcaa | acagcattct | atatgactta | 17160 |
| ttacaaaaac | aattttctaa | gtagctagtg | agtggtcatt | catctcaaac | ttcagagtat | 17220 |
| ccaattctct | caaaatatac | caaaagatct | ttaaaatcag | aaaatccaaa | caagtgggat | 17280 |
| actgtattcc | actgatgttc | tcgtcaacta | aggtttttaa | ttaggataaa | aaaaaattaa | 17340 |
| gagaggacag | tctacttgga | aacttcacta | tttttatctt | ttttaaatga | aatacttctc | 17400 |
| aaaaaatatt | ggcgggagtg | atgaacagca | ggtacactgc | agacccctcc | ataaagtgcc | 17460 |
| attataacag | tattttcagg | agaaatcaca | attacggctg | gcttagtgac | taatctttca | 17520 |
| acaaagccca | catcaagcca | gaacaaccct | ttacttacat | atgcacacat | aaaactaaac | 17580 |
| ctacaaaggt | tctttttttt | tttttttttt | tttttttttg | agacagagcc | tcactgtgtc | 17640 |
| actcaggctg | gagtgcgggt | gcacgatctt | ggctcatgca | agctctgcct | cttgggttca | 17700 |
| agtgattctc | ctgcctcagc | ctcccagagta | gctgggacta | tgaggcatgc | accaccacac | 17760 |
| ccggctaatt | tttgtatttt | tagtagagat | gggggcaagt | gcctgtaatc | ccagcacttt | 17820 |
| gagaggctga | ggtgggttga | tcacctgagg | tcaggagtgt | gaaaccagcc | tggaacaacat | 17880 |
| ggtgaaacct | catctctacc | aaaaatacaa | aaaattagct | ggcggtggta | gcgggtgcct | 17940 |
| gtacccccag | ctactcggga | ggctgaagaa | ggagaattgc | ttgaaccag | gaggcggaag | 18000 |
| ttgcagttag | ccgatacaac | gccattgcac | tccagcctgg | gcaacagggc | aaaaactgtc | 18060 |
| tcaaaaaaaa | aaaacccac | acaaaaatct | atggttttga | cattttgatg | cctcttgctc | 18120 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|-------|
| gtttcaaagg | catcttgatg | tgctgtggt | ttcactccct | tctagggtcat | catacagcag | 18180 |
| atgcagagta | tgtttctgat | taaaaaggaa | cttaaaggta | caaaatttat | gtattcatat | 18240 |
| tcctcacagt | catatctact | tctaggaaac | aagaacagg | aagacatgta | tattagcccc | 18300 |
| tggttaatca | ggggtacctt | ggaaaagtac | agtaagaatc | taagaaaatt | attctaaaat | 18360 |
| gaaggagggt | aaaatggagg | aagtcaagaa | tttttgtttc | tcttttcctt | gtattacaaa | 18420 |
| gcagctaaag | acctacatat | aaagtcccta | tacaccagca | ataacccttt | tgagagcaag | 18480 |
| cctcaaaaat | gagagataca | ttacacaaa | tcagaattta | caatgttact | atatacttac | 18540 |
| ccctctcata | tctgatatat | ttagtttcat | tgtatgaaac | atgttttagca | tcgcctttcc | 18600 |
| aattattttt | gcattatctg | ttgcctggtc | aagagttaca | gtcctgtaag | tgatagaatt | 18660 |
| aaaaaacaaa | agcttcattc | catatgtatt | cactagtact | aaagtagtat | ggaactgttt | 18720 |
| aaaagagtta | tagaaaagtt | gtaaacagtt | acaaagaaga | ttataaaaagt | gaatgccata | 18780 |
| gtctcccttc | aaggaagcca | gaaataccaa | attagttaca | ctggcaacca | aggggggaaag | 18840 |
| aaaaattatg | gaacactaga | actttaaggt | aaaaaccgta | atggacactt | agggtcaacta | 18900 |
| aaaataagtt | gagaaattta | gaaaaaggta | gattttagct | aacatatgca | caaataaata | 18960 |
| catattttcc | agctaaagca | caagtgaatg | gtttcttgat | tccaagagaa | 19020 | |
| gttttagggt | ccaagattat | gtatgctgag | gtatagcaaa | tattcagaag | agaaagataa | 19080 |
| attctctgta | tggtgtttct | tgactctcct | ttcattgtgt | ttacagtaca | gccaataaac | 19140 |
| aattcttaga | tctttaagaa | ctcttgaagg | aggaccaa | ggtccatcag | cattattagg | 19200 |
| tctcaaagat | gtgctgacct | caccacccat | ttccttcaga | gccttttgag | cttctctggc | 19260 |
| atgagcgggc | tgccccattg | caaacagaat | tactaactca | gtaacagatt | aacaaattac | 19320 |
| taccagttct | ctttccaaag | gaaagttatt | tcgtgttttg | gatgatcctt | tccatgtata | 19380 |
| atgaacaaat | gaagttccag | gccattaaac | aagaaatatt | cccagaaaaa | attattataa | 19440 |
| attgaattgg | attttcccat | agaaatgttt | aagaagataa | tcacattact | tcactctgctt | 19500 |
| atagaaataa | ccactaaaag | ctgagcacag | tggtcacac | ctgtaatccc | aaaacgctgg | 19560 |
| gaggtcaagg | caaaaggatt | gttcaaggcc | agcctgggca | acagagcgag | atcctgtctc | 19620 |
| tacataaata | agtttttaaa | gtaaataaat | aaatgaccac | tatttactat | ttgagataca | 19680 |
| tgtgtatcat | aacaggtagg | taaataataat | tcaagataac | caactgataa | aaaatgtatt | 19740 |
| ttataaatta | tgttctctaa | ttgtaattta | taattcctgc | tttcatggta | acttgggagt | 19800 |
| ttctctgttt | aagagcagtc | gtctcacgac | ttagcaatat | catcatatac | atgaatgcac | 19860 |
| catgtatggt | tggtcatgagc | taatctttta | tgaactata | cttcatattg | taagtagctt | 19920 |
| tcagtgtcaa | aagtctcaaa | attttgggtt | cacagatgaa | atacagtgca | atataaaatg | 19980 |
| acatgtaaaa | ccacacatct | tcatattggt | cacgaatcct | acatgaagtt | taatattaa | 20040 |
| tagttggccc | tgacataaaa | gacgagtgtt | tcagaccggg | cacattggct | catgcctgta | 20100 |
| atcccaacac | tatgggaggc | tgcggtgggc | ggatcatttg | aagtcaggag | ttcaagatca | 20160 |
| gccttgccaa | catagtga | ccctatctct | actgaaaata | caaaaattcg | ctgggcatgg | 20220 |
| tggtcatgcc | cataatccca | gctacccaac | aggctgagac | aggaggattg | cttgaaccca | 20280 |
| ggaggtagaa | gttgcaatga | gccgagatcg | caccactgcc | ctcaggcctg | ggtgacagag | 20340 |
| ccagactctg | tctcaaaaaca | aacaaccccc | cccccccca | aaaaaaacag | cgtttttaaa | 20400 |
| tgcttttacc | agttttcaga | cattacagtg | attcattcat | ctttttacca | attaaatgta | 20460 |
| tacacctatg | taaatgaagt | tgctctcctt | caccatcatt | tttctagcta | ctatagtctg | 20520 |
| cctttgtgta | tcattttttt | gagacagaat | gttgctctgt | tgcccaggca | ggagtgcact | 20580 |
| ggcgcatct | cagctcactg | caacctctgc | ctcctgggtt | caagcaatcc | tcctgcccc | 20640 |
| gcctcctgag | tagctgggac | tacaggcgaa | tgccaccatg | tcgggcta | ttttgtactt | 20700 |
| ttagtggaaa | tggtgtttca | ccatgttggc | caggctgggtc | tcaaattcct | ggcctcaagt | 20760 |
| gatccagctg | cctcagcctc | ccaaagtgtc | gggattacag | gtatgagcca | ccacacctgg | 20820 |
| cctgtatcat | tgtttttaag | aactacattg | aaattttcct | caggaaaaaa | gtttcaccaa | 20880 |
| gtcccgaac | tatagcagtc | cctttgggtc | gcagccttgc | cctttctttc | tgcccatgca | 20940 |
| gtaaagttaa | cagcccaaag | atgccaaagca | aaggctgcca | aggctcagca | tgccgtcaaa | 21000 |
| ccaacctcct | gtgtgtgggc | ctcgctgaaa | ccaagtgc | taacctagc | tgaatgcctt | 21060 |
| gggctgatgc | ctgcttctac | agaataccag | attaacgggt | ttacagggtc | ttattcaaac | 21120 |
| tcctccttgg | ttttcttcat | tttctattac | ttacaacaac | ctgtactgaa | atataattac | 21180 |
| caatatcatt | tctgaggtga | gcttacctgg | caatgttatc | acaaattcca | tgccctccaa | 21240 |
| attttgagct | ttctacagga | gccccaggct | ttcgtaccat | gattttgaga | gtagacgtt | 21300 |
| tacccttcat | gccagtggtc | tctagtcttc | tttgaatttc | ttctgaaaga | ctcagaagaa | 21360 |
| aagcttctgc | ctcttttggc | tatggaaaga | caaacgtgga | gaaactacca | ttccactttc | 21420 |
| ctatatacct | aataattggt | ctcaagtatt | ttaactttga | atattaaaca | tgttgggttac | 21480 |
| tcactatcac | gctcagc | | | | | 21497 |

<210> 12116

<211> 181

| 1. Personal Information | |
|------------------------------------|-------------------------------------|
| 1.1 Name | 1.2 Address |
| 1.3 Phone | 1.4 Email |
| 1.5 Date of Birth | 1.6 Gender |
| 1.7 Marital Status | 1.8 Education |
| 1.9 Occupation | 1.10 Annual Income |
| 1.11 Current Residence | 1.12 Previous Residence |
| 1.13 Current Employer | 1.14 Previous Employer |
| 1.15 Current Salary | 1.16 Previous Salary |
| 1.17 Current Job Title | 1.18 Previous Job Title |
| 1.19 Current Industry | 1.20 Previous Industry |
| 1.21 Current Company Size | 1.22 Previous Company Size |
| 1.23 Current Company Type | 1.24 Previous Company Type |
| 1.25 Current Company Location | 1.26 Previous Company Location |
| 1.27 Current Company Description | 1.28 Previous Company Description |
| 1.29 Current Company Website | 1.30 Previous Company Website |
| 1.31 Current Company Phone | 1.32 Previous Company Phone |
| 1.33 Current Company Email | 1.34 Previous Company Email |
| 1.35 Current Company Fax | 1.36 Previous Company Fax |
| 1.37 Current Company Address | 1.38 Previous Company Address |
| 1.39 Current Company City | 1.40 Previous Company City |
| 1.41 Current Company State | 1.42 Previous Company State |
| 1.43 Current Company Zip | 1.44 Previous Company Zip |
| 1.45 Current Company Country | 1.46 Previous Company Country |
| 1.47 Current Company Industry Code | 1.48 Previous Company Industry Code |
| 1.49 Current Company Company Code | 1.50 Previous Company Company Code |
| 1.51 Current Company Department | 1.52 Previous Company Department |
| 1.53 Current Company Division | 1.54 Previous Company Division |
| 1.55 Current Company Branch | 1.56 Previous Company Branch |
| 1.57 Current Company Office | 1.58 Previous Company Office |
| 1.59 Current Company Location | 1.60 Previous Company Location |
| 1.61 Current Company Address | 1.62 Previous Company Address |
| 1.63 Current Company City | 1.64 Previous Company City |
| 1.65 Current Company State | 1.66 Previous Company State |
| 1.67 Current Company Zip | 1.68 Previous Company Zip |
| 1.69 Current Company Country | 1.70 Previous Company Country |
| 1.71 Current Company Industry Code | 1.72 Previous Company Industry Code |
| 1.73 Current Company Company Code | 1.74 Previous Company Company Code |
| 1.75 Current Company Department | 1.76 Previous Company Department |
| 1.77 Current Company Division | 1.78 Previous Company Division |
| 1.79 Current Company Branch | 1.80 Previous Company Branch |
| 1.81 Current Company Office | 1.82 Previous Company Office |
| 1.83 Current Company Location | 1.84 Previous Company Location |
| 1.85 Current Company Address | 1.86 Previous Company Address |
| 1.87 Current Company City | 1.88 Previous Company City |
| 1.89 Current Company State | 1.90 Previous Company State |
| 1.91 Current Company Zip | 1.92 Previous Company Zip |
| 1.93 Current Company Country | 1.94 Previous Company Country |
| 1.95 Current Company Industry Code | 1.96 Previous Company Industry Code |
| 1.97 Current Company Company Code | 1.98 Previous Company Company Code |
| 1.99 Current Company Department | 1.100 Previous Company Department |

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| aggttgacagt | gagctgagat | catgccactg | cattccagcc | tgggcgacag | agggagactc | 60 |
| cgtctcaaaa | aagtaaaact | acaacaacaa | aaactgtttg | gtataccctc | aactattaaa | 120 |
| tacaaatacc | caccttccca | acaaagtgaa | agtaatgagt | acttttataa | gatatttttc | 180 |
| c | | | | | | 181 |

<400> 12117

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| cagtctagga | acatatgcat | ctttacatgg | aagaatctat | tgtaagcctc | acttcaatca | 60 |
| actcttttaa | tctaagggca | actatgatga | aggctttggg | cacagaccac | acaaggatct | 120 |
| atgggcaagc | aaaaatgaa | acgaagagat | tttgagagaga | ccagcccagc | ttgcaaatgc | 180 |
| aagggaagacc | cctcacagcc | caggggtaga | agatgcccct | attgctaagg | tgggtgtcct | 240 |
| ggctgcaagt | atggaagcca | aggcctcctc | tcagcaggag | aaggaagaca | agccagctga | 300 |
| aaccaaagaag | ctgaggatcg | cctggccacc | ccccactgca | cttggaagtt | caggaagtg | 360 |
| cttggaggaa | gggatcaaaa | tgtcaaaagc | caaatggcct | cctgaagacg | aaatcagcaa | 420 |
| gcccgaagtt | cctgagggat | tcgatctaga | cttgaagaag | ctaagcagat | cttcttcact | 480 |
| gaaggaaaga | agccgcccac | tcactgtagc | agcttcattt | caaagcacct | ctgtcaagag | 540 |
| ccaaaaaact | gtgtccccac | ctatcaggaa | aggctggagc | atgtcagagc | agagtgaaga | 600 |
| gtctgtgggt | ggaagagttg | cagaaaggaa | acaagtggaa | aatgccaagg | cttctaagaa | 660 |
| gaatgggaat | gtgggaaaaa | caacctggca | aaacaaagaa | tctaaaggag | agacagggaa | 720 |
| gagaagtaag | gaaggtcata | gtttggagat | ggagaatgag | aatcttgtag | aaaatggtgc | 780 |
| agactccgat | gaagatgata | acagcttctc | caaacaacaa | tctccacaag | aacccaagtc | 840 |
| tctgaattgg | tcgagttttg | tagacaacac | ctttgctgaa | gaattcacta | ctcagaatca | 900 |
| gaaatcccag | gatgtggaac | tctgggaggg | agaagtggtc | aaagagctct | ctgtggaaga | 960 |
| acagataaag | agaaatcggg | attatgatga | ggatgaggat | gaagagtgc | aaattgcaat | 1020 |
| gatgctgggc | cttaaattca | tgttagtgtt | agcgagccac | tgccctttgt | caaaatgtga | 1080 |
| tgcacataag | caggtatccc | agcatgaaat | gtaatttact | tggaagtaac | tttggaaaag | 1140 |
| aattccttct | taaaatcaaa | aacaaaacaa | aaaaacacaa | aaaacacatt | ctaaatacta | 1200 |
| gagataactt | tacttaaatt | cttcatttta | gcagtgatga | tatgcgtaag | tgctgtaagg | 1260 |
| cttgtaactg | gggaaatatt | ccacctgata | atagcccaga | ttctactgta | ttcccaaaaag | 1320 |
| gcaatatata | ggtagataga | tgacttagtag | tatatgttta | cacactattt | tggaaattga | 1380 |
| gaacatacag | aaggaaattta | ggggcttaaa | cattacgact | gaatgcactt | tagataaaag | 1440 |
| ggcacagttt | gtatatTTTT | aaatgaatac | caattttaatt | ttttagtatt | tacctgttaa | 1500 |
| gagattatTT | agtctTTTaa | TTTTTTtaggt | taatttttctt | gctgtgatat | atatgaggaa | 1560 |
| tttactactt | tatgtcctgc | tctctaaact | acatcctgaa | ctcgacgtcc | tgaggataaa | 1620 |
| tacaacagag | cactTTTTtga | ggcaattgaa | aaaccaacct | acactcttcg | gtgccttagag | 1680 |
| agatctgctg | tctcccaaat | aagctTTTTgt | atctgccagt | gaattttactg | tactccaaat | 1740 |
| gattgctttt | TTTTctggtg | atatctgtgc | tctctcataat | tactgaaagc | tgcaatattt | 1800 |
| tagtaataacc | ttcgggatca | ctgtcccaca | ttcttcggtg | tagagcaaaag | tgaagagttt | 1860 |
| aaaggaggaa | gaagaaagaa | ctgtcttaca | ccacttgagc | tcagacctct | aaaccctgta | 1920 |
| tttcccttat | gatgtccctt | TTTTgagaca | ctaattTTTTa | aatacttact | agctctgaaa | 1980 |
| tatattgatt | tttatcacag | tattctcagg | gtgaaatttaa | accaactata | ggcctTTTTc | 2040 |
| ttgggatgat | tttctagtct | taagggtttg | ggacattata | aacttgagta | catttgttgt | 2100 |
| acacagttga | tattccaaat | tgtatggatg | ggagggagag | gtgtcttaag | ctgtaggcct | 2160 |
| ttctttgtac | tgcatttata | gagatttagc | tttaatatTT | tttagagatg | taaaacattc | 2220 |
| tgcTTTctta | gtcttaccta | gtctgaaaca | TTTTtattca | ataaagattt | taattaaaaat | 2280 |
| ttgaactttt | caa | | | | | 2295 |

11111

<400> 12118
 tttggccggg tgcagtggct cacgcctgta atcccagcac tttgggaggg cgagggcgggc 60
 ggatcacgag gtcaggagat caagaccatc ctggctaaca cagtgaacc cegtctctac 120
 taaaaacaca aaaaattaag ccgggcgtgg tggcgggtgc ctatgggtccc aattactcgg 180
 gaggctgagg caggagaatg gcatgaaccc aggaggcgga gcttgcaagt agccgagatc 240
 gtgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaacc aaacaaacaa 300
 acaaaaaa 308

<210> 12119
 <211> 2293
 <212> DNA
 <213> Homo sapiens

<400> 12119
 cagtctagga acatatgcat ctttacatgg aagaatctat tgtaagcctc acttcaatca 60
 actcttttaa tctaaggcca actatgatga aggctttggg cacagaccac acaaggatct 120
 atgggcaagc aaaaatgaaa acgaagagat tttggagaga ccagcccagc ttgcaaatgc 180
 aaggggagacc cctcacagcc caggggtaga agatgccctt attgctaagg tgggtgtcct 240
 ggctgcaagt atggaagcca aggcctcctc tcagcaggag aaggaagaca agccagctga 300
 aaccaagaag ctgaggatcg cctggccacc cccactgaa cttggaagtt caggaagtgc 360
 cttggaggaa gggatcaaaa tgtcaaagcc caaatggcct cctgaagacg aaatcagcaa 420
 gcccgaagtt cctgaggatg tcgatctaga tctgaagaag ctaagacgat cttcttctact 480
 gaaggaaaga agccgcccac tctactgtag agcttcattt caaagcacct ctgtcaagag 540
 cccaaaaact gtgtccccac ctatcaggaa aggcctggagc atgtcagagc agagtgaaga 600
 gtctgtgggt ggaagagttg cagaaaggaa acaagtggaa aatgccaagg cttctaagaa 660
 gaatgggaat gtgggaaaaa caacctggca aaacaaagaa tctaaaggag agacagggaa 720
 gagaagtaag gaaggtcata gtttgagat ggagaatgag aatcttgtag aaaatgggtgc 780
 agactccgat gaagatgata acagcttcct caaacaacaa tctccacaag aacccaagtc 840
 tctgaattgg tcgagttttg tagacaacac ctttgcagaa gaattcacta ctcagaatca 900
 gaaatcccag gatgtggaac tctgggaggg agaagtggtc aaagagctct ctgtggaaga 960
 acagataaag agaaatcggt attatgatga ggatgaggat gaagagtgc aaattgcaat 1020
 gatgctgggc cttaaattca tgttagtgtt agcgagccac tgccctttgt caaaatgtga 1080
 tgcacataag caggtatccc agcatgaaat gtaatttact tggaagtaac tttggaaaag 1140
 aattccttct taaaatcaaa aacaaaacaa aaaaacacaa aaaacacatt ctaaatacta 1200
 gagataactt tacttaaatt cttcatttta gcagtgatga tatgcgtaag tgctgtaagg 1260
 cttgtaactg gggaaatatt ccacctgata atagcccaga ttctactgta ttcccaaaag 1320
 gcaatattaa ggtagataga tgattagtag tatattgtta cacactattt tgggaattaga 1380
 gaacatacag aaggaattta ggggcttaaa cattacgact gaatgcactt tagtataaag 1440
 ggcacagttt gtatatTTTT aaatgaatac caatttaatt ttttagtatt tacctgttaa 1500
 gagattattt agtcttttaa ttttttaggt taattttctt gctgtgatat atatgaggaa 1560
 tttactactt tatgtcctgc tctctaaact acatcctgaa ctgcagctcc tgaggtataa 1620
 tacaacagag cactttttga ggcaattgaa aaaccaacct acactcttcg gtgcttagag 1680
 agatctgctg tctcccaaat aagcttttgt atctgccagt gaatttactg tactccaaat 1740
 gattgctttc ttttctgggtg atatctgtgc ttctcataat tactgaaagc tgcaatattt 1800
 tagtaatacc ttccgggatca ctgtcccca tcttcctgtg tagagcaaag tgaagagttt 1860
 aaaggaggaa gaagaaagaa ctgtcttaca ccacttgagc tcagacctct aaaccctgta 1920
 tttcccttat gatgtccctt ttttgagaca ctaattttta aatacttact agctctgaaa 1980
 tatattgatt tttatcacag tattctcagg gtgaaattaa accaactata ggcctttttc 2040
 ttgggatgat tttctagtct taaggtttgg ggacattata aacttgagta catttggtgt 2100
 acacagttga tattccaaat tgtatggatg ggaggagag gtgtcttaag ctgtaggctt 2160
 ttctttgtac tgcatttata gagatttagc tttaatattt tttagagatg taaaacattc 2220
 tgctttctta gtcttaccta gtctgaaaca tttttattca ataaagattt taattaaaat 2280
 ttgaactttt caa 2293

<210> 12120
 <211> 308
 <212> DNA
 <213> Homo sapiens

<400> 12120
 tttggccggg tgcagtggct cacgcctgta atcccagcac tttgggaggc cgaggcgggc 60
 ggatcacgag gtcaggagat caagaccatc ctgggtaaca cagtgaaacc ccgtctctac 120
 taaaaacaca aaaaattaag ccgggcgtgg tggcgggtgc ctatgggtccc aattactcgg 180
 gaggctgagg caggagaatg gcatgaaccc aggaggcgga gcttgccagt agccgagatc 240
 gtgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaacc aaacaaacaa 300
 acaaaaaa 308

<210> 12121
 <211> 922
 <212> DNA
 <213> Homo sapiens

<400> 12121
 ggctgaatgg ccttttatta aaaatgtaag acatttttaa taaaagaagt taaaaagtct 60
 gtggaagtat tgagggtgag aatctctgct agctagatct ctatattaag tgatgagata 120
 agctttatta aaaatgagaa tcagttcata cttaacctaa gcttgacagt gctgggcaga 180
 gagtcctgct gtaccactac caatggagcc aggcaaggat gcctctctgc tagacacagc 240
 acatatggac aaagccacaa gctatggctc atcccaatag aatcttacta gttccctggg 300
 aaggttagct ataattgtct ctaactcaca tcatttgcac taaaaaaaga aagaaacaga 360
 tgatgactga tacacatggt ggttggtaga gctttcaggt tcctctttcc atgtagttag 420
 ggaaattcct cagcccatgt tcacctcggg tctcatgctg caactccatc cttagctcaa 480
 caccactgg cccctgcttt caaactgttg ctggtcttca ggtagagcag gttctgcaga 540
 tcaaaggaca tttttcacta aaaatctctg acatcagaga cagagactac atatctataa 600
 tgaacctttc cgaaacctgt ccattagaaa gccacttctc agtacagagg tggaccttgg 660
 agactttcca ggattttcac atccatctgc gaagaggaaa agaactcctg aaactgggct 720
 gacttcataa ccagtttaaat ttcacacatc tcacctttct ggagctgcct tgtttttccc 780
 ttcttgcatc actgcagaga aaattcatgg acttctctaa ggtgagactc tgaccatta 840
 gtaagaaagt cttgctttat gttaagttgg ctttctctgg agatctccta actgctttat 900
 aaacattctt tcacacctcc aa 922

<210> 12122
 <211> 98
 <212> DNA
 <213> Homo sapiens

<400> 12122
 tagtagagat ggggtttcac catgttggcc aggctgggtc caaactcctg acctcagatg 60
 atccacctgc ctgggcctcc caaagtgtg ggattaca 98

<210> 12123
 <211> 57649
 <212> DNA
 <213> Homo sapiens

<400> 12123
 agtggtatgt gccagaacc ttgcaaagaa agacttcttc agtaagtaaa cacttatttt 60
 tttccctctt ataattgtat gcatgtatct ctgaaatttt aaacttttaa aaaagattgg 120
 gtatattctc ttcaaagttt tgccctttac ttaatagaaa tccatgggtc tccaagcttt 180
 atttcccggt tgactacaac atgggtagtt ccttagctga aatatacaga acttataaat 240
 cataccgcaa aacctgtctt tcggttctcta ttctgggtcac acccaatttt ttctgcctct 300
 ctacctatta gaattattgt ttctgctgga tgatgtattc tcagctctaa tacaatgaa 360
 atacttttgt ataaaacagc tggatttgca tacaattggt aatcagattt tataaattaa 420
 atcacattta caacacccta taattaaagg aattgcaaaa ataagagact ccttttctaa 480
 aggaaggaat cactccttaa gaaagtcagt cagtatctgg tcagtgcctg cagcattaaa 540
 ttcttcacac actttctgat cctcacaaga catctttcag ttcttaagtgt gtattattca 600
 tgctttcaag atgaagaac ttaggctcaa aggctttctc caggtagcca ggaagctcca 660

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gcatggtggc | tcgtgtccat | ctctatctct | gacaactgtc | cacttttgcca | cctgtctgat | 720 |
| ctaataaacc | tctctgattc | attctctagc | athtagggac | ttaccgaatt | aaggcctggt | 780 |
| gaatacttgc | ttccatagat | aagataggca | aagatcagta | aacaaatttc | ggggcattat | 840 |
| taatttttag | aaagtctaaa | tacaattact | ttcagacact | tttccctcca | cttaatttagc | 900 |
| cccactttta | tagaaaattg | aatgtaagcc | tttttttttt | tcagtcactt | tcttttctac | 960 |
| cctctaaaaa | tctgagtatg | gaggcatact | aggctctctt | agaaagctca | atagacataa | 1020 |
| cttatttttg | tgattgaaat | tatcctgaaa | ttagagaaca | cgaatttgtg | gttctgtgtc | 1080 |
| acatggatgg | atgtgagggtc | tcactctaggt | gtgggtctcc | tctctcctct | agggctccct | 1140 |
| gacccttttg | caaagattgt | cgtggatggg | tctgggcagt | gccactcaac | cgacactgtg | 1200 |
| aaaaacacat | tggaaccaaa | gtggaaccag | cactatgatc | tgtgagttga | atgttctgta | 1260 |
| agcccccagc | ggagcggcag | gaaagcaggt | gtctaccttt | tacgagaaac | atccaagaga | 1320 |
| aaaaaaaaaa | aggatgactt | tttattgata | acaaaagcgg | atggccaaat | gaatgtctac | 1380 |
| attgcctaata | tttagaattc | atgtacttgg | aagttcttgc | attttgttac | tttctttttt | 1440 |
| cttttttttt | tttttttttg | agacggagtg | tcactctgtc | accaggctg | gagtgcgggtg | 1500 |
| gcgtgatctc | agctcactgc | aacctccgcc | tcccggttac | aagtgattct | cctacctcag | 1560 |
| cctcccaagt | agctgggatt | atggacatat | gccaccatgc | ccagctaatt | tttgtatttt | 1620 |
| ttagtagaga | tggtgtttca | ccatgttggc | caggctgggtc | ttgaactcct | gacctcaagt | 1680 |
| gatctgcccc | ccttagcctc | ccaaagtgtt | gggattacag | gcgtgagcca | ctgcgcccga | 1740 |
| ctgcatttgg | catgttcata | gattttttatg | gtttggtttt | gtacatgtga | tcctcaaact | 1800 |
| tttcaatctc | ctggccattt | tagcagaaaa | aaaggccata | gtttgtgaac | tccacatgct | 1860 |
| actgtttttt | agcaaaaacc | taaacctagt | tgtagtttct | acctaaaaaa | tgcatttttt | 1920 |
| tttttttttg | gatggagtct | tgctttgtct | cccaggctag | agtgtgcagt | ggcgcgatct | 1980 |
| cggctcactg | tgacctccac | ctcctggatt | caagtatttc | tcctgcctca | gcctcccaag | 2040 |
| tagctggaat | tacaggcatc | cgccagcatg | cccaactaat | ttttgtattt | ttagttgaga | 2100 |
| cggggtttca | ccatcttggc | caggctgggtc | tcgaactcct | gacctcatga | tccaccgcc | 2160 |
| tcagcctccc | aaagttctgg | gattacaggc | gtgagccact | gtaccaggcc | taaaaaattc | 2220 |
| attattatga | ctgtatgttt | ctgttgactt | tgaaaaattt | tgcttttttag | tacatatata | 2280 |
| ttttctgcaa | gagaaaaatat | agttttatat | gatcaaaagcc | atcaatttct | tatagtcatt | 2340 |
| caaaaactgg | attgtacttt | gaagaccact | atttttattt | atttttattt | atttttattt | 2400 |
| attttatttt | attttatttt | attttatttt | attttttttt | gagatggagt | cttgctctgt | 2460 |
| cgcccaggct | ggagtgcagt | ggcgggatct | cggctcactg | caagctccgc | ctcccgggtt | 2520 |
| cacgccattc | tcctgcctca | gcctcccaag | tagctaggac | tacaggcgcc | cgccactacg | 2580 |
| cccggctatt | ttttgtagtt | ttagtagaga | cggggtttca | ccgttttagc | cgggatgggtc | 2640 |
| tcgatctcct | gacctcgtga | tccgcccggc | tcggcctccc | aaagtgcctg | gattacaggc | 2700 |
| gtgagccacc | gcgcccggcc | tattttattt | ttaaattaaa | ttaaattttt | ttttcaaaca | 2760 |
| gagtctcgct | ctgttgcccc | ggctggagcg | cagtggcgca | atcttggtct | accgcaacct | 2820 |
| cctcctgctg | ggttcaagcg | attctcgatc | ttcagcctcc | cgagttagctg | ggattacagg | 2880 |
| taccgcgccac | catgcctggc | taatttttat | attttttagta | gagatgggtt | tcaccatgtt | 2940 |
| ggccagggtg | gtcttgacct | tctgacctca | ggtgatccac | cttggcctcc | tgaagtgcctg | 3000 |
| ggattatagg | cgtgagccac | tgcaactggc | tgtgaaggac | actattttat | atgcacccat | 3060 |
| gttttcatgt | tcctactaag | atattttcat | caaagtaatc | ctgaaagatt | attgtctttt | 3120 |
| agttaataca | aattatactg | tatttggttg | ggatttttaa | gaattatatt | ctaagattca | 3180 |
| gtttcagtg | cactgagggt | gtgtaagtgg | gttgagttcc | tctctccgtt | gacttgcagt | 3240 |
| gacagtaaat | ggaggtttta | tgtcttagtg | tcctcttggt | tactttgaat | agatccgtag | 3300 |
| gtttgtaagt | agtcctttgt | cgcaaaccag | tattctgtat | caaacctaat | tggtgagaat | 3360 |
| ttatgaatca | tgttactgtc | ctatgcgact | attaaaaat | agtaaatattg | ctgggtgcag | 3420 |
| tggctcacac | ctgtaactca | agcacttttg | gaggccgagg | caggaagatc | acctgagggtc | 3480 |
| aggaggttga | gaccagcctg | gccaacatgg | tgaaccccg | tctctactaa | aaatacaaaa | 3540 |
| attagccagg | tgtggtggca | ggtgcctgta | atctcagctg | ctggggaggc | tgaggcagga | 3600 |
| gaattccttg | aaccaggag | acagggttga | gtgagctaac | actgcgccat | tgcactccgg | 3660 |
| cctggggcag | aagagcaaaa | ttcgcgtctc | aaaaaataaa | aaaataaata | aaaataaata | 3720 |
| aaatatagta | agtctgttat | aagattatta | tcctcgtgtg | gttatctaca | tttgcccctt | 3780 |
| ccataaggag | caaggtagtt | cttcttccca | gcttggtgaa | attaatggat | acgtatttat | 3840 |
| taaatgcctg | ttacatgtgt | aatacagagg | caacattatt | ttataagggt | tcttaaagag | 3900 |
| aaaatctcaa | tgagatatca | taattcagaa | atacaattaa | aagctgggca | tagtagctca | 3960 |
| ggcctgtaat | cccagcactt | tgggaggcca | aggcaggttg | atcacctgag | gttaggagtt | 4020 |
| caagaccaac | ctggccacat | ggcgaaaccc | catctctact | aaaaatacaa | aaattagcca | 4080 |
| ggcatggtga | tgcacgcctg | tagtcccagc | tactcgggag | gctgaggcag | gagaatcact | 4140 |
| tgaacttggg | agttgcagtg | agctgagatc | acacaactgc | actccagcct | gggggcaaca | 4200 |
| gagcaggatt | ctatctcaaa | aaaaaaaaaa | aacaaaacaa | aaaaaaccaa | acacaattaa | 4260 |
| aatgagttt | tgcactttct | ttccagatat | gttgggaaaa | cggattcogat | aaccattagc | 4320 |

| | | | | | | |
|--------------|-------------|-------------|-------------|-------------|-------------|------|
| gtgttgggaacc | ataagaaaat | tcacaagaaa | caggagagctg | gcttcctggg | ctgtgtgcgg | 4380 |
| ctgctctcca | atgccatcag | cagattaaaa | gataccggat | gtaagaacca | aacactttcc | 4440 |
| tgccctcttaa | tgcaaccaa | gaaagcttag | gaggcatcgt | tttttgtttt | gatcgctgaa | 4500 |
| tactgaattc | ctgccttcct | ccctagttca | cgttccttgg | gttaagtttt | gaattgtttg | 4560 |
| tttacagacc | agcgtttgga | tctatgcaaa | ctaaaccct | cagatactga | tgcagttcgt | 4620 |
| ggccagatag | tgggtaagaa | ctttcttgtc | tgtgtaaaaga | gatgcttttc | cagaacttac | 4680 |
| attcaaccct | tcactgcgca | gaactcacat | acaggcactg | acgatgctga | cgggcctcag | 4740 |
| aggacagacc | acgtacgggg | ccttctcttc | agtactagga | agttttgtct | tgtgtagttt | 4800 |
| ttattatttt | atctaattcc | cttctcctgg | cttttttttt | tttttggttt | tttttttttt | 4860 |
| gagatggagt | gcagtgggtga | gatctcagct | cacctcaacc | tcgcctccc | aggttccagc | 4920 |
| gatttctctg | cctcagcctc | ccgagtactt | gggaccacag | gtgtgtgcca | ccacgcctgg | 4980 |
| ctaatttttg | tatttttagt | agaggcggag | tttcaccatg | ttggccaggc | tggtctcgat | 5040 |
| ttcctgacct | cgagtgatct | gcccgccttg | gcctcccaa | gtgctgggct | tacaggcgtg | 5100 |
| agccaccatg | cccggccccc | ttctcttggc | ttttaaaagt | gagtaaaaat | gactcgggta | 5160 |
| cagaaagatt | taggggttaga | attttaaagt | taattttaat | catcacattt | atggacaata | 5220 |
| catttttgac | cgtattatcc | aagggtagat | aataagaatg | gtggccacac | atacaggagt | 5280 |
| tgggaaatag | tttctcttgg | aagcccccac | atatatgtaa | aaagcataga | gttgtgaaga | 5340 |
| attccatgta | atatgatttg | tacagtcagg | ggactgcatt | atttagaatg | aaaaattaaa | 5400 |
| gtgtgcta | gttacaaa | gttggctaga | ggcagctctg | tggaaagtat | ttagtctgta | 5460 |
| aataactcat | cctattatcc | acccacttgt | attagtgttt | tagggtaact | cagatattga | 5520 |
| cttgggaagca | ctgctgcatg | gaataaaaaa | aaaaaggtct | ctctgcagca | cactggagtg | 5580 |
| attctcactc | caaactcttt | aggtattgtc | ctgtgtagac | ctgacccaag | ataaatgaat | 5640 |
| agtgcagaca | tacaccctga | aatctaccat | catgaaaaag | ttctcaccga | atgctttcct | 5700 |
| gcgtgtaatt | tcttttttct | ttgtggcggg | atgtgccagg | gagaaaaaat | agtaactgaa | 5760 |
| aaaaacttta | taaaagctct | gttcatagta | aagatagaga | ataaatattt | agattcactt | 5820 |
| agactttgca | gatactgaaa | gtactctctg | tgtctttatt | catttttttt | ttgacacgga | 5880 |
| gtcttgctct | gtcgcaccag | ctggagtgc | gtggcatgat | cttagctcac | tgcacactcc | 5940 |
| gctcccgcg | tttaagcgat | tctcctgcct | cagcctcctg | agtagctgga | gttacagctg | 6000 |
| cttgccacca | cgctgggta | attttttgta | tttgtagtgg | agacgggggt | ttgccatggt | 6060 |
| ggccagactg | gtctggaact | cccagcctca | ggtgatccgc | ccgccttagc | ctcccagagt | 6120 |
| gctggtatta | caggtgtgag | ccactgtgcc | cggcctctct | gtgtctttat | taaacttaag | 6180 |
| tcagaatggt | cttaagaaat | aaaaactggg | ctcagtggca | catgcctgta | gtctagctac | 6240 |
| tctgaggtg | aggtgggag | attgctcaag | cccaggagt | tgaggccagc | ctgggcaaca | 6300 |
| cagtgagact | taatcccccc | caaaaaaact | tcttattttt | attatttttt | ttaattttta | 6360 |
| attttttttg | gagacagagt | ctcactctgt | caccctgtct | gcagttcagt | ggcgcgactc | 6420 |
| tagctcactg | taacctccgc | ctcctgggtt | caagcaattc | tctgcctca | gcctcccaag | 6480 |
| tagctgggac | tacaagtgtg | tgccaccatg | cctggctcat | ttttgtattt | ttagtagaga | 6540 |
| tggggttttg | ccatgttgcc | caggctgggtc | tcaaactcct | gagctcaggc | gacccctcct | 6600 |
| tcttggcctc | ccaaagtgtc | gggattacag | gcatgagcca | ccgtgcctgg | cccaaaaaaa | 6660 |
| gtcttcttaa | aaaataaatc | ttcttgaaaa | taacttagag | ggactgaata | ttacattggt | 6720 |
| atttttatgg | agaccaggag | aaacatagca | cccttttctt | caccacattt | acaaggaata | 6780 |
| ttccaagtga | catgcagcta | ctggagtaaa | atgcttctga | ttggaaagca | taggaataata | 6840 |
| tgtgtgtatg | catacacata | tgccctcggtt | tttatgat | tgtacataaa | ttctaaatta | 6900 |
| gcaatgactc | actgtattat | aattatgtaa | accccgctgg | gttttaacac | aagtcgttct | 6960 |
| tttctctttt | agtcagttta | cagacacgag | acagaatagg | aaccggcggc | tcggtgggtg | 7020 |
| actgcagagg | actgttagaa | aatgaagggt | acgtataacc | acagcaagag | gcgggctgag | 7080 |
| ttctctgctg | ccttaacctc | tcggcctata | ggaaagcgcc | cttccctcct | taagtcactc | 7140 |
| tgcaaatgc | ttgagatgca | taaaggatgt | tgggataaaa | ctgtgaacca | gtttacttgg | 7200 |
| ctataaagga | agctgtaaat | acaactggag | ttggctgggc | gtggtggctc | acgcttataa | 7260 |
| tcccagcagt | ttgggaggcc | gaggcagggt | gatcacgagg | tcaggagatt | gagaccatcc | 7320 |
| tggctaatac | ggtgaaaccc | catctctact | aaatatgcaa | aaaattagcc | aggcgtgggt | 7380 |
| gtgggcgcct | gtagtcccag | ctactgggga | gactgaggca | ggagaattgc | ttgaacccgg | 7440 |
| gaggaggggg | ttgcagtgag | ccaagatcat | gccactgcac | tcagcctgg | gtgacagagc | 7500 |
| aagactctgt | ctcaaaaaca | aacaaacaaa | caactggggg | tgtgcctgac | tcaaaatcca | 7560 |
| gtgaaagagg | ctcccacggg | caaagatgg | gtgagtttga | gcatcaataa | gaattataac | 7620 |
| tgctgtaat | cccagcactt | tgggaggcca | aggtggccag | agactttggg | ctcgagtttg | 7680 |
| agaccagcca | gggcaacata | gcgagacttt | gtctctacca | aaaaataaaa | aataacaaat | 7740 |
| tagctggggc | tgggtggcac | cacctataat | cccagctgct | aggggaagctg | ag | |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| cacaacacta | aaaaaataca | acaaactgcc | gaaccgtcat | tggtcactgt | cacaatttttg | 8040 |
| cagtccccc | tgaattaatg | gacctggcca | acaagcagta | attgctaaca | acatcacaaa | 8100 |
| agagagatga | tccaacatta | acacacctct | tggaaataca | gggaaccagg | aatgtgtctc | 8160 |
| acggccccc | gggaatataa | tcaacaaaca | tccagaatgg | ggccttctgt | aggacagaca | 8220 |
| acccagggtc | ttcaacaaat | agactgcaag | aaaagcaaa | acaggaggga | aggagaacct | 8280 |
| gtcaacaatt | catattcaaa | caaacttgag | acatagctac | acatgcaagg | tgtggacttt | 8340 |
| ggatcctgat | ttatgagaca | attggagaaa | cttgaacacc | ggattttgat | ttttttaaaa | 8400 |
| aattaatgaa | catttttttag | tcattgataat | ggaaatattt | aaggatgaag | tcataaaatg | 8460 |
| ttgggggttg | tggggaggga | ttggaagagt | ggacattgga | tgatggttag | ctggggagggg | 8520 |
| tggacacagg | gggttcattg | tactggctct | tcatttttta | tacatatttg | aaatttttca | 8580 |
| atctaagatt | ttaaaagagt | atgtgtctct | aagggacagt | agcctattaa | ggtgaattgt | 8640 |
| cttcaaaatt | gctcaggggg | tgaagattga | tgtttaaaaa | gtatctaaag | gcatttttggc | 8700 |
| atattatgta | accgagagtt | tcattataga | gtaaaaatac | aagggaaaatg | gagtattttg | 8760 |
| attttgatttt | attttttttt | aaagattggag | tctcgctctg | tcaccacagg | tggagtacaa | 8820 |
| tggcacaaatc | ttggctcact | gcaacctctg | cctcctgggt | tcaagcaatt | ctcagcctcc | 8880 |
| cgagtagctg | ggaccacagg | cgtgtgccac | cacacccagc | taattttttgt | attttttagta | 8940 |
| gagatgcggt | ttcatcatgt | tggccagggt | ggtcttgaac | tcctgacctc | aagtgatctg | 9000 |
| cccacttcgg | cgtcccaaag | ttgggattac | aggcgtgagc | caccgcactc | ggcctggatt | 9060 |
| tgatttttaaa | tcaagaaaaa | tgagatctca | tttcacaaac | tcctcatagt | ctaaggctgg | 9120 |
| tttcttctaa | tcatttccagt | ctaccctatg | gtgaaattgt | acagttggcc | ttggggacac | 9180 |
| tccggccacc | tgttctctct | agaagagtct | gtctttctgt | ttgagtggca | catggtgaat | 9240 |
| tttacaaaac | taggcctctg | gaacactgga | cgttggttaa | ggaaagcaaa | tcaatttatg | 9300 |
| tgacggtgtc | ccctaggaca | ctagccctaa | ggcgctgggt | ttgtgactcc | tccatgggtga | 9360 |
| caccatgcct | gctgtctctc | gtccctttca | gaacggtgta | tgaagactcc | gggcctggga | 9420 |
| ggccgctcag | ctgcttcatg | gaggaaccag | ccccttacac | agatagcacc | ggtgctgctg | 9480 |
| ctggaggagg | gaattgcagg | ttcgtggagt | ccccaaagtc | agatcaaaga | cttcaggcac | 9540 |
| agcggcttcg | aaaccctgat | gtgcgaggtt | cactacagac | gccccagaa | cgaccacacg | 9600 |
| gccaccagtc | cccgaactg | cccgaagggt | acggtgagag | aatgtatcct | gctgtggcca | 9660 |
| atgccatctg | ccctgtttcc | atgagttgac | tttttttttt | tttttgagac | aaggtcttgc | 9720 |
| tgtcacccat | ctgggagtg | agtggtcatg | tcattggtcca | cggcagcctt | gacctcccta | 9780 |
| gtcaagcgga | tcctcgcgag | tagctgggtc | tataggcata | caccatcatg | cctggctaat | 9840 |
| ttttgtattt | ttttagagaa | atgggtctcg | ccatgttgcc | caggctgggtc | tcaaactcct | 9900 |
| gggtcaagt | gatccacctg | cctcagccgc | ccaagtgtcg | ggattacagg | tgtgagccac | 9960 |
| tgcattctggc | ctttaaccct | ttttgagtag | cctgtgccat | aagtgcggat | gtttgcgtgg | 10020 |
| ctatgccatt | tgataattgt | ggcagtgtaa | agacaactgg | aagacaatgg | tcctaaatct | 10080 |
| agctaatacat | gaattttcag | caattgtctc | aaatctccca | gttttagaaa | caagtgaaaa | 10140 |
| tcttaggcaa | acgaacacca | agcacaacca | aggaatacatg | taggctagat | gaggggtgct | 10200 |
| gtagtgtctc | ggaaaggaga | gactggggcg | agatggagaa | gaggggatta | ttcggccacc | 10260 |
| tcagagagaa | gaactgggat | aagaggggag | tgttatctag | atttagataa | taccagacgt | 10320 |
| gagggcatcg | agggttggtt | acaaactctc | cctggaattg | aacttgtctc | atttggatct | 10380 |
| ctaatttctt | gtgtagaaca | aagaacaaca | gtccagggcc | aagtttactt | tttgcataca | 10440 |
| cagactggag | ttagcacgtg | gcacgacccc | aggataccaa | ggtaagcctc | ctgaaatgga | 10500 |
| cacccccccag | ctgtcttttc | agcagttgac | ttgaaaagcc | aataccttcc | agatgtgttg | 10560 |
| ctcttgtttt | aaactaaaaa | tagtgatgaa | tgagatgata | ttgatgtctg | ggatttcctt | 10620 |
| catagaagct | ggggtggggg | gagtagacag | gggtacattt | gaaacgtgag | tcattgttga | 10680 |
| cctttgaaac | aaggttgacc | atgatcattg | ttgaagttgg | ttacacgaca | atccttatgt | 10740 |
| atcactaact | tttttatatg | cttaaaattt | tccatcataa | gtcaaggaaa | tataaagact | 10800 |
| ctgttaccct | ttctctcttc | tactttactg | tccccattgc | ctcagtcctt | cgggggaccat | 10860 |
| tcctggggga | gatgcagctt | ttctatacga | attccttcta | caaggccata | catctgagcc | 10920 |
| caggttagag | agaccccccc | cccaccccat | aacagagtta | agtttctttt | tttcttttgc | 10980 |
| tttttatattc | cttttagaat | agcattacta | cctaatatga | tttttggtaa | tatttagttc | 11040 |
| ctttttattc | atgatttggt | tcattctgaga | ataaacttcc | tgtctgattt | tccaaagacta | 11100 |
| tgttttaattg | atgactcagt | accataatag | agactggaaa | tatatctac | gcaaagtgaat | 11160 |
| gaggtgtctc | ttttgtacct | cctgttagaa | atgacaggct | tttgtgttaa | ttagaaacac | 11220 |
| atcttggtca | gtaaagctgt | gctcccttct | gactgtagat | tgtgttgaaa | ttattaatca | 11280 |
| ggagaataat | taatcattct | tagagtggaa | aatacttggt | gagcaaaaag | cccatttgaa | 11340 |
| aatgagaatg | cctcgtcctg | ctgcaactgt | ttagaattgc | gagtttctga | acgcatgttc | 11400 |
| ctgtacctcc | cttagccctg | aaaagcttgg | | | | |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ttcactcttg | ttgcccaggc | tggagtgcaa | tggcgtgac | tgggctcact | gcaacctccg | 11700 |
| cctcccagg | tcaagcaatt | ctcctgtctc | agcctcccaa | gtagctgaga | ttacaggcac | 11760 |
| ccaccaccac | acccaactaa | ttttttgtatt | attagtagag | acaggggttc | atcatgttgg | 11820 |
| ccaggctgg | ctcgaattcc | tgacctcagg | tgattcactt | gcctcccaga | gtgctgggat | 11880 |
| tacaggcgtg | agctaccgcg | cccagcctga | aagtttggtt | ttaaatctct | cggatgttgc | 11940 |
| tgctgtttgc | agcagagagg | cctggactga | gtagagggtt | ggcgtaagta | gcaccacgaa | 12000 |
| ggtccatctt | agcagagctg | ggacacagac | accttgataa | ggaacctctg | tggcttctgt | 12060 |
| tgctgacttt | tggtctcatt | cctccatact | cagttggaca | aacctctctg | tatcttccat | 12120 |
| tttggtagag | accttaacag | tgtgaactgt | gatgaacttg | gacctctgcc | gccaggctgg | 12180 |
| gaagtcagaa | gtacagtttc | tgggaggata | tattttgtag | atcataataa | ccgaacaacc | 12240 |
| cagtttacag | acccaagggt | acaccacatc | atgaagtaag | actttaaaaa | tattttttgc | 12300 |
| tgacctcttt | cattggtaat | cgaatgcttt | cttggactgg | tattttttgtg | aattttattga | 12360 |
| ctgtcttgct | ggttgagata | taagcatggt | caaatgatg | ttaaatatct | ggcggataat | 12420 |
| tgcatatttt | aaactcttaa | attagctgtg | aagagcactg | aagccctatg | ttgttgctac | 12480 |
| cctttttctta | cttgcagcct | acataaaaatt | taccgagatg | gcagtattag | gcggctgcac | 12540 |
| gaaggaagtt | tccgcacgca | gcgctctcat | gagacacgtg | gcccttaggt | tgagaagtag | 12600 |
| agatacgtgc | tatcccccta | gtgcctgcac | ggtggggaac | tggatacctt | ggaactggga | 12660 |
| attatcttgg | atcccatatt | tagtggtcca | ggcctgtcgt | gttctcagag | ccaaacattc | 12720 |
| cacatagctc | tttttttttt | tttttttgag | acagagtcca | gctctgtcac | ccaggctgga | 12780 |
| gtgcagtggc | acaatctctg | ctcactgcac | cctccacctc | ctgggttcaa | gtgattctcc | 12840 |
| tgccctcagc | tccctagtag | ctgggattac | aggcgccgcg | caccatgccc | agctaattat | 12900 |
| tgtattttta | gtagagatgg | gattttgcca | tgttggccag | gctgggtcca | aattctcgac | 12960 |
| tgcggtgat | ccgcctgcct | tggcctcccg | aagtgtcggg | attataggca | tgagccactg | 13020 |
| cgctgcccc | cgacatagct | cttttaaccg | acagctctgt | gtctcagtgg | caaaacttga | 13080 |
| acaggacaaa | tgccactttg | tcaccgtact | aatcctactc | cttttactga | aattttgtct | 13140 |
| tcaatgagca | ggtgtagaaa | tctcttgcg | gtaaaaatga | gggatgggtt | tcatttagatt | 13200 |
| tcactcgagc | ggtctgctgt | tgtgcctatc | atgagatttc | atgtgagttc | tccactgtta | 13260 |
| cctcctttaa | aattttttcc | catcatctcc | atttcattct | aactgccaa | gtgcatctga | 13320 |
| tgatgctttg | gttcatctca | tgggtgcgta | atagatgcat | aataaatgac | agccatttcc | 13380 |
| attttttatt | gtgggtgtaa | tgtgtgagat | aagtgtttgc | ttggaattgt | ggtacctcct | 13440 |
| tttttttag | agagtagctc | tggctgtgtc | accaggctg | gagggcagtg | gcgcaatctc | 13500 |
| agctcactgc | aacctctgcc | tcccgggttc | aagcgatttc | cctgtctcag | cctcctgagt | 13560 |
| agctgggatt | ataagtgcc | accaccacac | ctggctaatt | ttttgtattt | ttagtagaga | 13620 |
| ccgggtttca | ccatgttgte | caggctggte | tcgaactcct | gacctcaggt | gatccacca | 13680 |
| cctcagcctc | ccaaagtgt | gggattacag | gcttgagcca | ccacgcccgg | cctggggtag | 13740 |
| ctcctttatg | gtactgtaga | catacattta | ggctaattgt | gccatcagca | agtttgacac | 13800 |
| agctagctag | gtacctgggt | acgtcatcag | ggaaacaaat | tctccctgaa | gttgtgtgca | 13860 |
| gctagctctc | tcccttgacc | ctgtcgcgta | cgtgggtgct | tgacagctcc | ctggccgggg | 13920 |
| cttcggagtg | actttctgca | tctcttcttc | tcaagtcacc | agtgccaaact | caaggagccc | 13980 |
| agccagccgc | tgccactgcc | cagttagggc | tctctggagg | acgaggagct | tccctgccag | 14040 |
| agatacga | gagatctagt | ccagaagctg | aaagtcctca | gacacgaact | gtcgcttcag | 14100 |
| cagccccaag | ctgggtcattg | ccgcacgcaa | gtgtccagag | aagaaatctt | tgaggtagag | 14160 |
| agttcagggc | cactgcccag | accctgttca | gaaacaaata | aggcaattca | gacaaaggaa | 14220 |
| tctcaaagtc | gattgttttc | aagggtctgt | ttaaatgaac | tgctttgtgg | gtgatgtctg | 14280 |
| cgtttcagg | aacccttctt | tctgttttgt | atgtgaggt | ttgattttat | tactaaggga | 14340 |
| agtgcagagt | ttgtcaggac | cacagcctgt | ctagaggggag | ggaatgggat | tcatttctct | 14400 |
| ttatggtaaa | aatggaaaaa | ctaaatagtt | tcacctctag | gtgaaaacct | agagggtgat | 14460 |
| acagaaacta | gcactaaaaa | atagtgggaa | ccgccttgte | tacatgatgt | gggttaaata | 14520 |
| ttcctgcaat | ctgcaatctg | cgctttcccc | agagccaggt | agtctccctc | ctctcttctt | 14580 |
| gtatgagatg | tcatctgagg | gctctccttc | tcagggcagc | tcaggggctg | ggggccatcc | 14640 |
| tgcttctcct | gtggaaattg | gcgaggagca | ggtggctctt | gggacaggct | ctgtccctta | 14700 |
| cacagcttcc | tgacaggagca | ggtccctaaa | cagaccaggc | ccttttccca | agaaagctga | 14760 |
| ccatacagga | aaatctccat | ggcatttggt | ccatttccctg | ccctcctttg | tggagacact | 14820 |
| gtcagaaatg | atcaaaggag | actgagcaca | gattctccct | gggtgacagc | actaaggggag | 14880 |
| cactgggggg | ccgaggggagc | tgagcgcctt | ccccaccgcg | agggctgggc | ctgagtgttg | 14940 |
| gatgggcagc | ttggccacag | cgcccagccc | tgctgtctgc | atgtatgccc | ttgttgacag | 15000 |
| gtcagaaaag | cgctgaagta | ctgacttcac | taccagctcg | tttctctctt | ccctcttggg | 15060 |
| ttgccagagt | ttatttgttt | gggttttttt | tttttttttt | tttttttgaga | cggagtcttg | 15120 |
| cactgttgcc | caggctggag | tgcagcggca | tgatctcggc | tcactgcaac | ctctgactcc | 15180 |
| caggttcaag | cgattctcct | gtctcagcct | cccgtgtagc | tgggattaca | ggcgcccgcc | 15240 |
| accaggccca | gctaattttt | tgtattttta | gtagagatgg | gggggtttca | ccatgttggc | 15300 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|-------|
| caggctggtc | ttgaacttct | gacctcaagt | gatccgctca | ctttggcctc | ccaaagtact | 15360 |
| gggattacag | gcgagaccac | cgcgcccggc | tgggttgctg | gagtttgaat | tgcgttaa | 15420 |
| ttaaagcacg | aaaaatttct | taagtgcctc | gttactgaat | ctacatctat | aaacacgtag | 15480 |
| cggcttctgc | ttcaagtgct | gagtgtagg | gaatagcagg | ctgatcacat | gtgttctgtg | 15540 |
| ctgtgcttaa | gccaccttat | gtcttactta | aaatcttttt | gccttttgac | tcagtgggaa | 15600 |
| atcaaagtgt | atttttcact | ttagatataa | agagaggctc | agaactctct | tagcattcag | 15660 |
| actttcta | gtcttgattt | tggttgcgat | gcacaagttg | tttatagtgt | gcattgaa | 15720 |
| taatttatac | agagaagaat | caacctcagt | gagttttgtc | cttaagtcct | tgtgtattca | 15780 |
| ctgaaaacag | acacgtgttt | cctgaaggt | tagtgttttc | tggcatcggt | tttgttttgt | 15840 |
| ttgtgtctca | gaggagaaaa | ctgagaaaaa | agatgatgga | atatactaga | tgcgaagaa | 15900 |
| acattctgat | gaggagccag | ataaaacttg | aattggaatg | gatgcgtggt | cttaaccggg | 15960 |
| ctccattatc | aatgaccttt | cataacttta | agaataagaa | tgttcttctc | tctgaaactg | 16020 |
| tgatgttgct | cttcaggagt | cttaccgcca | gataatgaag | atgcgaccga | aagacttgaa | 16080 |
| aaaacggctg | atggtgaaat | tccgtgggga | agaagggttg | gattacgggtg | gtgtggccag | 16140 |
| gtgagctgct | tgttcattca | ccttctctgc | tgtgtggatc | tcagtctttt | caagagaagt | 16200 |
| catttgccct | tctccagtgc | tcataccaa | gcactcctgg | gcagggtctga | tgtctccttg | 16260 |
| gagcagtcgg | gccatcatgc | actggcttca | gccaccctgc | ggagaatagg | aattcctccg | 16320 |
| agcatgctcg | tgcacgcctc | ttgccataac | ctaccagaat | atccgtgatt | gtcaccacta | 16380 |
| attgacttct | tgtaaagcta | gaattaaact | tttaaattca | ctcccttctt | ttgaaacatg | 16440 |
| aggagcatgc | tcctgaaatt | taacacagga | ggcagccttg | ctctcctctg | tagaggattt | 16500 |
| gctgcaggga | gcagggcagg | gattgcattt | gtgcatgtaa | attgcatttg | tgtcaaagga | 16560 |
| attttghtaa | atgttaaaaat | tttgggtcaa | ataattcaag | aaaatgatat | taaaaaacag | 16620 |
| aatagaatga | tgaaaaactg | ctatttcatg | tcctgcttct | tttcagcttc | aagacaattt | 16680 |
| tttttttttg | gtcttttttg | agacggggtc | ttgctctgtt | gcccaggctg | gagtgcatg | 16740 |
| gcacaatcat | agctcactgc | agcctcaacc | tcctgggctc | aagcgatcct | cctacctcag | 16800 |
| cttcccaagt | agcttgaagt | acagggtgtg | gccaccaggc | ctggctaatt | tttaaaaagt | 16860 |
| ttttttaga | gatgaggtct | tactatgttg | cccaggctgg | tctcaaaact | ctggggtcaa | 16920 |
| gccactctcc | catcttggcc | tcccaaagtg | ctgagattgc | aggtgtgaac | cgctgtgctt | 16980 |
| ggctaagaca | actgcttctt | aactctttta | gctcttttct | ttgaataggt | atcttgttat | 17040 |
| ttccggattt | aatgatttat | gggcatatac | ataagataga | ctgactctag | ttactctcat | 17100 |
| gttcaattta | gtaatatgga | tctttttagt | tcttccatca | tttgtaaact | tatgtcctgt | 17160 |
| gctttcacct | ttattttttt | gatgtatcaa | ctagagacat | gatctctgga | cctctcattt | 17220 |
| gcataagaac | aggatattca | tacttacaac | tttctctgtta | gcattccttc | tgcctcttaa | 17280 |
| attctgtcat | ctgtaatat | acttttatgt | tgtcaaggct | aagatttaca | ttctcttctg | 17340 |
| taaccaaaat | ttggtcagtc | tcttatgtct | gtctaccaat | tatttghtaa | gggatgaaag | 17400 |
| tttatacgg | ttacattatt | atgaatgaaa | atattgtcca | ttaagggttt | aaatagtatt | 17460 |
| ctagaattta | acttttttga | acaaattcta | atttttccaa | gaatttcttc | ttcccttttt | 17520 |
| tttctggaga | cagcatctca | ctctatggcc | caggctggag | tccactggct | ggatctcggc | 17580 |
| tcactgctac | ctccacctcc | cagggtcaa | tgattctcat | gcctcagccc | cctgagtagc | 17640 |
| tgggattaca | ggtgcgagtc | accatgtcca | gctaattttt | atatttttag | tagagatggg | 17700 |
| gtttcaccat | ggtggccagg | tgggtgttga | actactgacc | tcaggtgatc | ctcccgcctt | 17760 |
| ggcttccctc | cccagtagct | tctactgtct | ctactgcccc | ttgaacttca | agtcctccag | 17820 |
| gatggttaca | catcatacct | tctgacagcc | cccgtgtctc | ctgcaaggcc | tctgtgcagc | 17880 |
| ctgatggcga | ttctcttgc | cctctgtgcc | gtggtgtgcc | tgagacttca | ctgcttccct | 17940 |
| gggtgaggtc | cattgtcctg | ggcgctccat | agcttccctt | ttcttggcgt | cctcccttgt | 18000 |
| catgctgtga | ccaccgcag | gttgtgtggt | gtgatgttct | tctttctcat | ctgcatcttc | 18060 |
| caagagagtc | aaactacatg | cagtcaggaa | cttgtcttgt | tcacagctga | tccccggttc | 18120 |
| ctagaacagc | acctaacaca | cagcggaaaca | cttgtctctg | taaatatgtg | ccaaatgaat | 18180 |
| gaattttact | ttttgttaat | ttcttcgcac | attttctttc | tttggtcatt | ctgaaatgcc | 18240 |
| tgttactcag | ctgtcggact | ccttggtttg | gtctggtagg | agttacattc | cttctgcgtt | 18300 |
| ttccgtagtc | atccagctct | ctgcgtggag | atgggtcggt | gtgaatttcc | cttgactgac | 18360 |
| atgatgtctg | agtggaaga | gttggaatc | ctgtctctgc | cacctccagt | ttggtcttgt | 18420 |
| agtggttatt | caccactgga | gtcttctctc | taattgggatg | atacttagag | aacggtggag | 18480 |
| agatttcagt | tgcagtgtga | ttacacatgt | gcagggtgtg | gttcattatc | cgatctgtgg | 18540 |
| gagttaggct | acacttatct | ccccagtatt | tagtcttgaa | gtcctttctg | tagcctctct | 18600 |
| ttttggcctg | tttagttatt | gcttccctta | ccacttccag | aacagaactg | attgtatctt | 18660 |
| tacgtgtcc | atggctcgg | cggaatgttt | gcttgtattt | taatcacttc | ctgtctagac | |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| gtccttccct | attecgtctc | atctctgttt | gaaaaagtaa | gaaattccag | aataaaattt | 19020 |
| ggagctgcta | tcttaatgcg | atccggttga | aaggagtttt | gagcagaatg | aatagaagac | 19080 |
| tcttcgtaga | tctgccacag | gtgtttgtct | aagggctggg | cttaatgcaa | cctgagtgtg | 19140 |
| gccactgaac | catacaattt | ctattttaaa | tgcccttttt | ttggcttgac | tgtttttaac | 19200 |
| tttgggggtt | ttaaaataat | aaaatgatgc | aaacattaaa | gaaattcaga | aaataacaac | 19260 |
| ttaggctgag | cgtgggtggc | cacgcctgta | atccctggcac | tttgggaggc | cgagatgggt | 19320 |
| ggatcatttg | agggtcaggag | ttcgaggcca | ccctggccaa | catggtgaaa | ccctgtctct | 19380 |
| actaaaaaat | ccagaaaata | gccgggcctg | gtggcgcatg | cctgtagtgc | cagctactcg | 19440 |
| ggaggcagga | aaatcacttg | gaccaggaag | gcagagggtg | cagtgaacca | agatcatgcc | 19500 |
| actgcactcc | agcctggggc | acagagtggg | actccatctc | agggaaaaaa | aaaaaatgta | 19560 |
| gaaattttag | cgcgctctca | atgcattttt | gttgtttgct | cccagggagt | ggcttttact | 19620 |
| gctgtgccat | gaaatgctga | atccttatta | cgggctcttc | cagtattcta | cggacaatat | 19680 |
| ttacatgttg | caaataaatc | cggattcttc | aatcaacccc | gtaagtatga | atgaacaaag | 19740 |
| aggtagggaa | ttgagttgga | gaagttttga | gatggatttt | cagtttcatt | ctcagtcctt | 19800 |
| ggtctatttg | ttgtagactt | aatcaaaagc | agtggtaagc | aaaacatgga | gaggtaaagt | 19860 |
| gaaaactgaa | ttaagatgga | tgattccaat | cctgtatttt | cagagatcgt | gatcactggg | 19920 |
| tgtgctgtgt | tgaaggagat | gaagggtgaa | actgagctgt | tcatacactc | acactttgtg | 19980 |
| atcatttgag | ggaactctgg | tgtgatgatc | gtatgtgtta | atgggtgcat | tctaaggagt | 20040 |
| aggttccgaa | gtccagcctc | ctcccgggtc | aaactggaat | ctttccagaa | ctagcttttt | 20100 |
| aagccacaaa | tgctgccacc | cttagcgtgc | tggttttaga | gatgaagaag | tcagtgcagt | 20160 |
| gtttgcacgc | ccagctcaag | ggtgggcagc | cggccagcag | gggactcctc | ctgtggccacc | 20220 |
| acggccttca | ccagctcctc | gcacaggcca | ctgaggcgaa | gtcgggacag | gctccgcttg | 20280 |
| tgcatccaac | tgtggaagaa | ccctttacca | acatggaagc | agagttttga | ttcatttttt | 20340 |
| gagggtgaac | taattcaaac | ctgaaagtag | agacgtgtgg | ttcctgagtt | aagaccagaa | 20400 |
| cggctctggg | tctagaatgg | ttcttttctt | ttttttgaga | gagagtctcg | ctgtgtcccc | 20460 |
| caggctggag | tgcatgtggc | tgatctctgc | tcactgcaac | ctctgcctcc | caggttcaag | 20520 |
| cgattctcct | gcctcagcct | cccagtagtc | tgggatcaca | gacccctgcc | accaggccca | 20580 |
| gctagttttt | gtatttttag | tagagatggg | gttttgccat | gttggccagg | ctggtctcga | 20640 |
| actcctgacc | tcagggtgatc | tgccctgcctc | agcctcccaa | agtgttgaga | ttacaggcgt | 20700 |
| gagcaacctt | gcccggccta | ggattgttat | ttgatttggc | ttactcatac | atatttttct | 20760 |
| gtggcttttt | tctcccctct | agcatttctt | ccctccctcc | ctctctttcc | ctctcttctt | 20820 |
| ttcgttctgg | atcgagggag | tgggtgtgga | ggaggaaagg | aacttgccct | ttcttttctt | 20880 |
| gtgcagtggg | aggaagcaca | gggctggcct | cctgggtgcg | cgtccagcat | gggtgccagg | 20940 |
| ccctgcagtg | tcaaggccct | gggcttgggt | cgattctctg | ttgtcacgaa | ggtgaaattc | 21000 |
| tcagtcattg | ctgaacacgg | ggctcctctg | ccagttatat | ggcccttctg | aggaggtggt | 21060 |
| ggccctgaga | gcatacaaaa | cgctgtccag | cgaatctagg | caaatttctg | ctacacaagc | 21120 |
| agccttcttt | cacttgttca | ggagcggggc | ctgtgagtc | ctgagtcagt | aggtctgggt | 21180 |
| gcctctggga | cacttttccc | aagaagcttg | gggacagcac | gagattccca | cattggccgg | 21240 |
| caccatgctg | acaaattcgt | gttctctggg | gccccctaca | ggaccacttg | tcttattttc | 21300 |
| actttgtggg | cgggatcatg | gggctgggct | tgttccatgg | acactacatc | aacggggggt | 21360 |
| tcacagtggc | cttctacaag | cagctgtctg | ggaagcccat | ccagctctca | gatctgggaat | 21420 |
| ctgtggaccc | agagctgcat | aagagcttgg | tgtggatcct | gtaagtattg | actgacggcc | 21480 |
| ggtcacctgg | cttagggccc | accaccacgt | ctatcgtatg | tatgcgcgtg | cgcgcgcgcg | 21540 |
| cgcggtgtgt | tgtatttttg | ggatgtgtgt | gaagccattg | tattataacc | tgaacacaaa | 21600 |
| aaaggggatt | ttttggaagg | cggaggcggg | cagatcaatt | cagtccagga | gttcgacacc | 21660 |
| agcctgggca | acacagtggg | accccgttac | tgcaaaaaaa | tacaaaaaaa | cccaccagat | 21720 |
| ctagcaaaaa | gtactcagtt | gacttatttt | cctcatgatg | ttgggcaggt | ttctcttcat | 21780 |
| ggactagttt | cttttgtttc | cttgaatgaa | gaaggcgcca | tcacagacgt | taacaggcca | 21840 |
| ctccccaggc | ccgttgtggg | gtgtgtgtga | gacactcagg | gcactctccag | ttaacctaca | 21900 |
| caggggccaa | gcaagtatca | aaacaaaatt | aacatttagt | tacctctgct | ttagaattat | 21960 |
| tctaaacact | ctgttaagag | cagcaggcag | tgacaagatg | aaccgtgact | atcacgggtc | 22020 |
| cttgacagatt | tcacggggac | aaaacatcag | gctctgacag | atggagggaa | tgtgggtgag | 22080 |
| tcggagtcgg | ggctcctggg | tgtgtcccat | gtgtcacatg | ttccaacttg | aacaggggac | 22140 |
| tctggggatc | aggtagaaaa | tcttccactc | agctgggtgc | ggtgggtcat | gcctattatc | 22200 |
| ccagcacttt | gtggggccga | ggtgggtgga | tcacttgctc | ttttcacttg | aggtcaaagg | 22260 |
| ttggagtttg | agaccaacct | ggccaacatg | gtgaaatccc | gtccctacta | aaattaaaaa | 22320 |
| aattttaaaa | agccagggtg | ggcacatgcc | tgtaatccca | gctactcagg | aggctgaggc | 22380 |
| aggaaaattg | cttcaaccca | ggaggcagag | gttgcatgga | gctgagacca | caccactgca | 22440 |
| ctccagcctg | gatgacagag | tgagtctctg | tctcaaaaaa | aaagaaagaa | aaagaaaatc | 22500 |
| ttccactctg | cctagggtca | agaacgatgg | cagattcaag | agctagtttt | cacttttcgag | 22560 |
| tacttttgtg | tttgaactga | tgcccttggg | aaggctgcct | ctaaggaggg | aacagtattt | 22620 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| tttttttttt | tttttttttt | ttttgagaca | gagtcttgc | ctgtcaccca | ggctcgagt | 22680 |
| cagtggctca | attatcggct | caacgcaacc | tccacctccc | aggttcaagc | aattctcctg | 22740 |
| cctcagcttc | ctgagtagct | gggactacag | gcgcctgcca | ccacacctgg | ctaatttttt | 22800 |
| gtgttttttag | tagagatggg | gtttcaccat | gttgggcagg | ctgggtctcaa | tctcctgacc | 22860 |
| tcgtaatcca | cccgcctcgg | tatcccaaag | tgctggggatt | acagggtgtaa | gccgctgtac | 22920 |
| ctggccaggc | acagtatttt | cttggcatgg | cttcactctc | aggtaaat | ccctttgacc | 22980 |
| ctggtacctc | ttcacgttcc | tgctttttga | ctcccacact | gcttcaaaa | cagctgggtt | 23040 |
| gtgggtcccc | tgaatcacaca | ggatgggtaca | gcaacctgct | gcccgccttc | tatgactgtg | 23100 |
| gaagccaggga | gccgggacat | ctggaaacag | agctgtggtc | tcagggtcct | ccagcacctg | 23160 |
| ttgctgtgcc | acccccacgc | aggttctgtg | tctgcccag | gctgtcctgt | cttgacagccc | 23220 |
| cgggtttggc | agtcgtaaat | gttttctgtc | taccaatgg | ccccgcgtgg | tggcagagtt | 23280 |
| ctaacctaca | tccttctgtc | ttattttcaac | agagagaacg | acatcacgcc | tgtactggac | 23340 |
| cacaccttct | gcgtggaaca | caacgccttc | gggcggatcc | tgcagcatga | actgaaaccc | 23400 |
| aatggcagaa | atgtgccagt | cacagaggag | aataagaaa | aatacgtccg | gtaatgccac | 23460 |
| ctgtcgggga | cggccagggtg | cctggggcgc | ggctgagcct | gcatttagtt | gctgtagctc | 23520 |
| cttcgctgtg | tggagcctgc | atgtccctga | tggttggtgc | ttatgatcag | atcacatgaa | 23580 |
| cagaggcgac | tttgcgaac | cgacagctca | gcagcagctc | cagggatctg | cttggagggg | 23640 |
| ccctgatggg | gccaggcctg | gcctgaggga | cagagcccat | gtggggaaag | acttttctagt | 23700 |
| gaccacctaa | ttctgggtgc | aaagggtggg | ggcaaaggag | agagcagcag | cttggagggt | 23760 |
| ctctcgtgct | cagtccgagg | aagccacctc | ctcagttttt | ttccaccctc | aacttgaggc | 23820 |
| agatctgtgt | tcaggcctag | gcacttgccg | cctaggcact | tgcagctgag | aactatgtgg | 23880 |
| gcacgtctgt | gtgccacgct | gtcctgtgct | gtactttcaa | atgtactttt | acacatttaa | 23940 |
| acaattttta | aattttttaca | tggtcttgc | atgttgccag | gctgggtctcg | aacctctggc | 24000 |
| ctcaagcaat | cctcttgctt | ccgcctccca | aggggtctgc | attgcaggcg | tgagccgcca | 24060 |
| tgcttgccca | gaacatgcct | tcacattgca | gcaattgatg | tgacagatca | ggttcaatcc | 24120 |
| tctgtttttc | gcgagcaaat | cggaatgaat | cagggcacgt | ctgtagtcat | ttttaacgtg | 24180 |
| atgccaaagt | ttggtactac | tagctggtgg | tgtgtttgtc | tgtcttgagg | agatccgggg | 24240 |
| agtggggggc | tcagtgtggt | cccatgtttg | tcagactgtg | atatcagaac | ctgctcacag | 24300 |
| gtcggggcga | gtggctcatg | cctgtaatcc | caacactttg | ggagaccgag | gcggggcgat | 24360 |
| cacctgaggt | caggagctcg | agaccagcca | tggccaacat | ggtgaaaccc | catctccact | 24420 |
| aaaaatacaa | aaattagcca | ggtgtggtgg | tgggtgcctg | taatcctagc | tactggggag | 24480 |
| ggtgaggcag | aagaattgct | tgaacccagg | aggctgaggt | tgcagtgagc | cgagatttag | 24540 |
| ccattgcact | ccagcctggg | tgacagagtg | agacctgtgc | tccaaaaaaa | acctgcccat | 24600 |
| ggcgaaaaat | ccacttggtg | ttgcatccaa | cttgccagtt | tttcttccag | gttgtagtga | 24660 |
| aactgagagg | ttatgagagg | aatcgaagcc | cagttcttag | ctctgcagaa | ggggttcaat | 24720 |
| gagctcatcc | ctcaacatct | gctgaagcct | tttgaccaga | aggaactgga | ggtatgtgcc | 24780 |
| tgctgtgcgg | agtcgacca | gggcgtccct | gtggctggcg | tctgcctggt | ttaaatcctt | 24840 |
| gctgcagggg | gcagtgtgtg | ccgctttcta | gtaagcctag | gagctgctgg | ggttcccaga | 24900 |
| ctagagccag | ggctggagca | agagtgggga | gtagagggtg | ttcatgccag | ttagtaaccg | 24960 |
| gcgagatgtc | tgcttggcgg | taggaaatct | gactaactcc | cgggaaaactg | ttcaagggtg | 25020 |
| ctgtggcttc | ccttgtttgc | aagatctcta | gcaggggaga | ttgcatagcc | ctctcctgtc | 25080 |
| ttggggagaac | caggttcttc | cacaagagca | tcttactgct | ttttattctg | gctcttcta | 25140 |
| gcttaggaac | aaggggctac | tgtcttctct | agtcatactg | catgcacttg | aacacgggtga | 25200 |
| ttcattcagc | ccttatccat | ctctgggtgc | aaatagctca | agccgtgtag | attgttctcc | 25260 |
| aagtctttct | gctgccagtg | aggagagctt | gggagccaag | agcttggtatg | gagcagtagt | 25320 |
| tctgggggtga | acttttgtgg | tttttttttt | tttttttttt | gagacacggt | ctcgtctgt | 25380 |
| tgctcaggct | ggagtgcagt | ggtgcgatca | tggctcactg | cagcctcgac | ctcccaggct | 25440 |
| gaagccatcc | tcccacctcc | gcctcccag | tagctgaggc | tacagggtga | cgctcatcatg | 25500 |
| cctggcta | ttttgtattt | ggtgtagaga | cgggggtttt | ccatgttgcc | caggctggcc | 25560 |
| ttgaactcct | gggctcaagt | gatctgcccc | acttcggccc | ccacaaagt | ctgggactac | 25620 |
| aggcgtgagc | cactgcaccc | agcaggggtt | gaacttttta | agccaatg | ggaacatgc | 25680 |
| cctatcgccc | ccagccccc | ctaactcttg | ctgaattctc | ctctcttcag | acttgaact | 25740 |
| ccacatgtcc | ttgagtgtcc | tggagagacc | ctgggacgtg | ccgttattca | tgggttagctc | 25800 |
| tgttcagtgt | caccgggttg | ttctttgata | ctcctcaccg | atgcagagca | aaaacccgc | 25860 |
| tttgggtata | aaataacatc | ccatcaacag | ctgtgcaccg | cggtccttgg | ggttggagac | 25920 |
| ccgtttggag | gaggcggacg | gaagcatgtg | ccacaggcct | cctgttttga | gctttcttcc | 25980 |
| tgtctcaaca | tct | | | | | |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|-------|
| gggtccacgc | gagtccecgct | ccaaggcttc | aaggctttgc | aagggtgactg | acgtggaggc | 26340 |
| agggctattc | gatgacgcgt | ctatgtgcgc | tgtgggcagg | aagagctgga | aggtggctgg | 26400 |
| gatgtttttc | tgagatgtgt | gctagaaaaa | ggcataagga | atgttctcca | gtagctaattg | 26460 |
| ctctgcccta | cagaggtggt | tacctggcag | gggccgtgtg | tgagcagggtg | tggggccccg | 26520 |
| ctgagcaaag | actgtggagc | cactccaggg | cacctggatt | ccccctcctc | actgcttcca | 26580 |
| aaaagccaag | agggctctgga | cagcaggggc | cttcagagtgt | tctgtgaggc | cagcttagcc | 26640 |
| aagatcccgg | ggagggagct | atgggggaac | cgcccccagt | ctcagtggct | ccaaagcttg | 26700 |
| gagctgcaca | tgaacccgtt | tagccacca | ccacaccgaa | agatgatgtc | ctgctcactc | 26760 |
| tgtttaagcc | actgaggtcg | ccggaagtgg | ggtggaattc | tgtgcgaaag | gtgcccatct | 26820 |
| gcctgtaggg | caggcggcct | aatgtctcat | cttttacact | taggggtttgg | aggggtacgtt | 26880 |
| gctggaagga | gtgaggtgag | tgaaggggtgt | caccatactg | aaatttagct | gattggactg | 26940 |
| taaagtctga | tagacacaca | gacacattgt | aaacacagaa | tattccctct | gcctcgctga | 27000 |
| gtaaaatgag | gttaattcca | tttcagtcgg | ctttggccat | cagggcacct | gcatcttttc | 27060 |
| cattgtgacc | tctgcctata | gattttgctgc | tgggggcca | gcatggataa | aaaggggttt | 27120 |
| gaggctgagc | ccgctcgta | tctgggagcc | tctgtctgcc | tgaccatgac | agctgctccc | 27180 |
| agagcttgct | ggtgcctgtc | atttacaag | cctttctcat | tcagttctcc | caacaacccc | 27240 |
| gagagcctgg | ctgatgggga | ttattagccc | cattccatgg | atgaggaagc | cgagactcac | 27300 |
| tgaggtcatg | ggatttatta | tccccccgag | gaaaaaaaac | aggaggtgtg | agtggggagg | 27360 |
| cagggcagga | atccaggctt | cctgaccaag | tcacttttct | catggcgcca | ttgtcttgcc | 27420 |
| cacagcaggt | ccacatgcta | aaccttctctg | cttagagata | gtccctgtca | ttgtaagggt | 27480 |
| ctcatagtc | ctccaataat | tggatagact | ttagccagct | gtcctccaag | tgtctagaag | 27540 |
| gtgggtcaga | ggtgaccagg | gtcacagctc | cgaacaggga | gtgctgggtg | tgtgggagg | 27600 |
| cactgaatgg | tggcccgggc | agagtggcca | gggccctgca | ggaggtctct | gaaggccctc | 27660 |
| acctggcca | gcctgtcctg | actccccagg | aggctggggc | ttggaggggtg | tggcctgtga | 27720 |
| gggggaggag | ccagcttctc | gtcccaggac | cccagaaacc | aggggctgca | cactgagacc | 27780 |
| ctctgcccac | cataaagatg | gtgtctctgc | tggctctcat | tgctcccgga | gtcctgtcct | 27840 |
| gccactgacc | ttggcccagc | ttgaaaggag | tatctgtgaa | tacacaggag | caaggggcag | 27900 |
| cagagccaag | gcccgtgccc | tctgcgccct | cctttcccag | cacctggcac | ccctgtcagc | 27960 |
| tagccgtctt | tgcagcagca | gtggtggctg | ctggccagcc | tggtgtcac | ttggggctga | 28020 |
| gtttggaac | acctgagcaa | gaaggggcct | ggtgcctctc | cctgccctac | agaactgggtg | 28080 |
| ggcaagtctg | ctattccaga | gggtgggtac | aaatagctct | gacctcagg | gagcctgtct | 28140 |
| ggagcaggcc | catggtcagg | gtgcacttta | gggggggcct | tagcagtcct | tgctctgccc | 28200 |
| cctgcgatat | tctaaaatgt | tggcatcttg | gctgagtgtg | gtggctcacg | cctgtaatcc | 28260 |
| cagcactctg | ggaggccgag | gcagggtgat | cacctgaggt | gatccaggag | ttccagacca | 28320 |
| gcctgggaaa | catggcaaaa | ccccgtctct | actaaaaata | caacaattag | ccaggcgtgg | 28380 |
| tggcatgtac | ctgttatccc | agctactcgg | gaggcaggag | aattgcttga | acccggcagt | 28440 |
| cagatgttgc | agtgagccga | gactgcccc | ctgcactcca | gcctgagcaa | cagagtgaga | 28500 |
| ccctgtctca | aaaaagtgtc | tgaattttgt | gactttgata | gccattgcag | gcatgtccta | 28560 |
| aaaccaggcc | tgggaacctc | atggccctct | cacaggacag | cctgcctggg | tgtgggggtg | 28620 |
| ggaatgtggt | cagggccctg | ctcctggggg | ctgtgtggcc | gggaagcgcc | acggctgtaa | 28680 |
| ctctgaagta | cattaactag | aatgttgtct | tgtaagggtc | tacaggcgcg | gcaggggccc | 28740 |
| ggctgttcac | catccacctg | atagacgcga | acacagacaa | ccttccgaag | gcccatacct | 28800 |
| ggtaagcacc | gcggccagga | agtcacggcg | tcctgggagc | cccagaggat | gctgacgttc | 28860 |
| acgttttttt | tttgttgttt | ttttttgaga | tggagtctct | gccaaaatat | ttttgtcatc | 28920 |
| atcagaactc | aaaagccaca | gcacctgaga | cagaaggaga | aattctagag | ttgaatgaca | 28980 |
| attctgaagc | cctcaagcaa | gagactttcc | ccccgacatt | acgacactgt | atagagcggc | 29040 |
| tttactggcc | atgtaaaaaa | atacctgtaa | gaggggcaac | attattgcta | aacttaacat | 29100 |
| acatctttct | tacagtatat | ataacctaaa | atttaaatat | agattttctc | ttgatttagt | 29160 |
| tttttgtttt | tgagacagtc | ttgctttgtc | actcaggatg | gagtgcagtg | gcacgatctc | 29220 |
| ggctcactgc | aacctctgcc | tcctgggttc | aagcaattct | catgcctcag | cctcctgagt | 29280 |
| agctgggact | acaggcgcac | gccaccacac | ttggctaatt | tttgtatttt | tagtagagat | 29340 |
| ggggttttgc | catgttggcc | aggctagtct | ggaactcctg | gcctcagggtg | atctgcccac | 29400 |
| ctcggcctcc | caaagtgtctg | agattacagg | cgtgagccac | caagcccggc | ctcatgttat | 29460 |
| tttttaaagc | tgttttccga | tttgtaggac | tctgtttcat | ttatgccaat | tctcaatgac | 29520 |
| tggcagtagt | gcttgtgtca | gatgggacaa | gtactttgca | gcgtcccaca | caaaggttgt | 29580 |
| cagagtctct | tatgaaacta | attttgttat | gagccatgta | attaattaat | attgggtgttt | 29640 |
| cagtggagtg | tggctaccac | tccagcaggc | tcaagtcctc | ctctctgcca | ggtccttagt | 29700 |
| acacacacct | gttggttaagg | aaaattgtat | agtttttagt | ttggatgtat | tgggcttcac | 29760 |
| tttatctgac | atttctgggt | ccccatcttc | ttggaatcct | gcttatgaca | cacgtacctt | 29820 |
| gtctattgca | aatgttttct | tcctaaattt | taacttaaaa | acgagtctcc | atagtagatt | 29880 |
| atttctctga | tggtttacaa | atacaatcac | ttgcgtacac | tttgtcctgg | aacctccat | 29940 |

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|-------|
| tgagacgagt | agccacattt | ccttggggga | accagttcta | gatgctgctg | agatgccccg | 30000 |
| tgagatgatg | gaaggttcct | gtcttggaa | ccaaggatgc | ggggtcagat | gctagctgtg | 30060 |
| acaccctctg | acatgtgatt | tggggcaagt | gacttcatat | tctaacttgg | ttttccacac | 30120 |
| ctgtgaaatg | gggtaatgca | gctgggtcctg | gacctgggtg | ggtgccaagg | tcctgtctca | 30180 |
| agcatggctg | tggcgtccat | tacgggaacg | caccatggtg | gctgcacacc | ctactcacia | 30240 |
| ggcttttgtc | ctttagtagt | ttagtgtctg | gagttagatg | gatgtggaaa | gtatgctctg | 30300 |
| aagctccaga | aaaaagagt | cccgccttgg | aaccagctc | tgtagagaca | gaaaccatcc | 30360 |
| ttaattgtct | accctagaaa | gccagaagtc | actgtacatc | ctctgggtca | caatttttga | 30420 |
| ttttttggtt | tgctacgata | gcttcttaaa | ggatgtcttt | ttctttgcac | aaatactgga | 30480 |
| aatgagcttc | cccctggaaa | tatcgagtca | gaagttgaat | attcatttca | tcttttaagg | 30540 |
| atctgtcatc | ttgttagttt | tgagatctat | tttgtttttg | cagggaaattt | tccagactgc | 30600 |
| cctgtttttg | tctcagatca | agtcccagag | gaacagacag | acacgcagta | catcgtagt | 30660 |
| ggtgacgttg | cctgacagcc | agcttaggtt | acaggggtcg | caaagaggc | attcccagta | 30720 |
| cagagaaaaga | atttctccca | aagacagaca | aacagaaaac | aagtggagag | ctttgtcctg | 30780 |
| atagaagcag | taaatagtaa | cttgggttatg | ttttggttgt | gaaggcccaa | gacttacttt | 30840 |
| actgtgtgtt | gattgggac | agtggctccc | agcacgttga | gagggcaagg | caggaggttc | 30900 |
| acttgaggcc | aggagtttga | gagcagcctg | ggcaacctag | cgagaccctg | tctctaccaa | 30960 |
| aaagcaaaaa | caaattacaa | atctttgtat | tagaagcaga | aaaacacagg | ggacatggag | 31020 |
| aactcatcac | caaccctgcc | ccacccccca | ttcctctccc | ctccacacata | tacttctcac | 31080 |
| tgctgtctct | tggccttgag | gttgggtccta | gggctggact | gcccacacgg | tgactctctt | 31140 |
| ttgtcctttt | tcagctttaa | ccggatcgac | attccaccat | atgagtccta | tgagaagctc | 31200 |
| tacgagaagc | tgctgacagc | cgctgaggag | acctgcgggt | ttgctgtgga | gtgaaaagca | 31260 |
| accaaaggca | acagagtcta | gctcatggcc | accagaccaa | aagcatccag | cttctgtgca | 31320 |
| cctcctgcaa | agctggcaga | ggccttgaa | ttccagatca | cctgagggga | aagggttgtc | 31380 |
| tctctccttt | ctgttggggg | agggggatgg | gggacttttg | ttggtggctc | ccacccatat | 31440 |
| atccctcctt | taccatagta | ctcccaccca | cttccatcac | ccatccaata | aatgcagcc | 31500 |
| aggtttagcc | tttggtcttg | gtcacacagg | atattctgct | gtgttgcaac | ccatgtggtg | 31560 |
| ataaggctca | cagccctgag | ctctttacgg | gagcatcaac | tcacagttag | gggactgggc | 31620 |
| gtggctgatt | gagggttttg | aactggtggc | tatgccagct | attccatctc | aaaacagcct | 31680 |
| tgaggccctt | tttcaatttg | agcagctgct | agatatctta | tcagagctca | gattccagat | 31740 |
| ttcacatccc | agcagccgtg | tctgggtagc | agatcaattt | ccaactggaa | aataactata | 31800 |
| taatgtatgc | ttattggaat | tctgccacag | caggaagctt | gagtcaaaat | gtgtttcccc | 31860 |
| tttgaaagga | gaaggaattg | gagcagcttt | tcctggaggc | ccaggatatt | tcttttctgg | 31920 |
| gtatcttggc | tgaaaatttt | gttttacata | gagaaaaacg | atctttttaag | ggtccctttt | 31980 |
| gctgcattat | ctgtccagtt | tgactttttt | ttcagtgaag | acaccatgtc | atggagtgtg | 32040 |
| ggaaagagca | gaccaaaatc | agccctagag | ccaaccagtc | agtcccaaag | ctgtgacctc | 32100 |
| tgtgccactg | ttgtccatag | aagagcatcg | actgtgtcac | ttaaaatatt | agtaaaccat | 32160 |
| gatgcagcaa | ctgctaagag | ctaaactaac | aaaatttgtt | catcatagct | gctggcttgg | 32220 |
| tgtgaactcg | cttaaaagca | atggtgaaag | gataaacctg | atgatgtaaa | tccacccaaa | 32280 |
| gatactgttc | tacaaaaagt | aggggttgga | cgaaaacctg | tgacagcaga | gggggacgac | 32340 |
| ttcacactca | ctgcctcatg | tggccctttt | cccagtggca | gctggtgaca | ctaacgattg | 32400 |
| ctactcggtt | cacttgccca | gatgtcttca | tatgatgagc | aaggccagaa | gcaaggctag | 32460 |
| attcgaagtt | tctgacacca | tttccagttt | gcacaaaagt | cagtatttta | tcttaaagtg | 32520 |
| gcttgatttc | caatagctga | acttgggag | aaaacagcag | gccaatgttc | ctatgtgggt | 32580 |
| tctttgttgt | tgttttttgt | tggggtgggg | gcaagtacag | ggtaattcat | gagcaagaca | 32640 |
| tttctactgt | gtcgaagtct | ctgggatccc | gctgtgggtc | tgagatggcc | tgggaaggac | 32700 |
| cttgtggaca | atgggtttat | ctgttctttt | tgtcactggt | aatttctggg | ctgctgaggt | 32760 |
| tctagaatag | aagggtgccc | aaatgaggtt | tgtcgcagga | ggaaagttta | atccccatt | 32820 |
| ccaaaagtcc | aggccaaatg | gtgggcttag | cctctttgaa | aagttctgcc | ttgccccac | 32880 |
| agggtggcac | atcctgtgtc | tcattcacca | tgatgcttcc | tgagggtgtt | ctagaagccc | 32940 |
| gttccccagt | ggctgtatcc | agcctttcct | tgcacatctt | tcctcttgaa | ggtgagggaag | 33000 |
| tgaaaactac | agacctcccc | cggacagccc | actctctatc | acgagcctaa | cccgcgggag | 33060 |
| gcggaagaga | catccattcg | agaactgaag | cggcctccgg | gatgaggtca | gaggccccac | 33120 |
| ctgattttcc | tggtgggtgg | atccaaaatc | ttcagtaact | aggaaggaaa | ccagggtctc | 33180 |
| atggtttaaa | agactttgaa | gcaggaatgt | tgcatttgac | gcctttaaaa | ctaccttttt | 33240 |
| gctgttggga | ggagtcgggg | gcgagcctta | gcagctgcac | cgccatcccc | atgctgggtg | 33300 |
| gtgctgccct | gcctctcggt | ccgggtgttg | cttcagccca | gagccagagg | gctgggtccc | 33360 |
| gggtcctcca | caggtgaccc | cggtggacac | acgcgttccc | atcctggcct | ccgtctctgc | 33420 |
| ttttccactt | ctacctgcgt | gtgggtttgc | cgccttgtca | tcggttgtgt | gagtgctgca | 33480 |
| gacctttcca | gagctccggt | tcactctttc | caaacaggcc | tcctgtctcg | tggcactgca | 33540 |
| ctcctagaac | cttcagtttc | tacgatgggt | tgttttgtcc | ttttgaacca | cccaaagaa | 33600 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ctcaacatgg | caaagcaa | ggtaaaagct | tcccgactgt | tctacttttg | gtccgcgcga | 33660 |
| agccactca | cgtgtgatct | gtgttgcccc | tctcgggtgg | cccaggcgat | ccagccatgc | 33720 |
| ccccgcccc | tctgcccaga | tgcttcaggg | gccccgcttt | tcaggcttgc | cctcaccagc | 33780 |
| ggccgtcagc | cgacactcag | ggatgtagct | aacaccactc | cgccagtgtc | ttcagtagga | 33840 |
| agagctgagg | ctgcctggga | ggccccgggc | gaccggaaaa | gggctctctc | aagttctgaa | 33900 |
| aagagaatct | gccaccagat | cgaatttcga | cccctgaget | tggtcggacg | tatggtccaa | 33960 |
| attcagatta | aggtgggtcac | ccaacccgag | atgtcaggaa | aggccttctg | cagagaaaaat | 34020 |
| gtccccccac | ccgccatctg | cagccagggtg | tgtgccacac | ggcagccttc | ccgaaacata | 34080 |
| gtatggattt | taaaaatgtg | tttatttttg | tttctcaacc | actttataac | gtattttttta | 34140 |
| atttattttt | taatgtcttg | ttttgaagta | ttgctgctat | ccttgttatc | cttcccactg | 34200 |
| tttttatcac | tgattttattt | tgtgaaagtt | gtacactaat | gttctatgtc | aaaatcaaaa | 34260 |
| gtattttaatg | aaatactagt | tctattttaat | gtgggttatgg | aaccagctgg | aaacacaaaa | 34320 |
| caaacagtga | ttgtacagca | ggctggggccc | aggaggctcag | gttcattttg | ttacatatgc | 34380 |
| aataaactca | cgacttttaca | tttttggcgt | ctgttattttt | gggtgtggaaa | tgagattcta | 34440 |
| gtgtcttttg | aaacccacaa | gaaaggaagt | gtgtaggcag | caggaataact | ggcaagggcc | 34500 |
| ttccaaggaa | gaaggacaga | gataaggata | gaattgttaag | ggaaactaat | ggcaatatgg | 34560 |
| tagtgggctg | aaagtgtctc | atcgggaaaa | aacatgggat | tgagaaaatt | tagaattttct | 34620 |
| ttgcgcaccg | gttatctttt | cgttttttcc | tttttttttt | atttttttga | gatggagttt | 34680 |
| tgtctctgtt | gcccaggctg | gagtgcagtg | gcgcaatctc | ggctcactgc | aacctccacc | 34740 |
| tcccagggtt | aagcaattct | cctgcctcag | cctcccagat | agctgggatt | acaggcttgc | 34800 |
| gccaccacgc | ccggctaatt | ttgtattttt | agttagagatg | gggtttctcc | atggttggtca | 34860 |
| agctgggtctc | aaactcccaa | cctcagggtga | tcgcgccgcg | tcggcctccc | aaagtgccgg | 34920 |
| gattacaggc | atgagctact | gtgcccagcc | cttacttttt | taaaaagtgt | tagtaaaaaat | 34980 |
| actgtcagcc | ctacatacca | gtgggttcca | catatatgga | tccaactggg | gatcaaaaaat | 35040 |
| attttttttg | ctgggtgcgg | tcaggagctg | gagaccagtc | ccagcttctt | gggaggctga | 35100 |
| ggcatgagaa | ttgcttgaac | ctgggaggtg | gagtttgcag | tgagctgaga | tcacgctact | 35160 |
| gcaactccagc | ctaggcaaca | cagcaagact | gtctcaaaaa | aaaaaaaaaa | aaaaattttt | 35220 |
| tttttaaatg | gatggttgca | tcagaacatg | aatagatttt | tttttctttt | cattattccc | 35280 |
| taaaccatac | agaataaaaa | ctacttacat | ggcatttata | ttgtattaga | aattataaac | 35340 |
| aatctagaga | tgatttaaaag | tatacaggag | gatgactttt | tttttttttt | taaaaaaaag | 35400 |
| agtctcactc | tgtcaccag | gttagagtg | agtgcacaaa | tcttggtcca | ctgcaacctt | 35460 |
| cgctctctgg | gttcaagcga | ttctcccgcc | tcagcctccc | gagtagctgg | gactacagga | 35520 |
| atgcgccaac | atgcccggct | aattttttgta | ttttcagtag | agatgagggt | ttaccatggt | 35580 |
| gcccaggctg | gtctcaaact | cctccaccca | cctccacctt | ccacagtgtc | gggattacag | 35640 |
| gcatgagcca | ctgcacctgg | cattactgac | atcttaacaa | agttaagtct | tccaatctat | 35700 |
| gaacatggga | tgtcttttca | atttacttta | gttttcttta | acttctttat | acaatatattt | 35760 |
| gttttcggga | gacaactggc | aagtcttgca | cctgcatggg | tagctttatt | cttttagatg | 35820 |
| ctattataaa | cataattgct | ttcttaagct | cttttggtga | cattcattgc | tagtatatag | 35880 |
| aaacataact | gcatttgggt | gtcaatcttg | taccctaaaa | ctgcaaaaat | tcgtttctctg | 35940 |
| gctctagtgg | ctttcttggg | aattcttttg | aattttctat | ctgtaggaga | tagctttacc | 36000 |
| ttttccttcc | aacttgggat | ccttttatatt | tttatctatt | agctctggct | tatactttcc | 36060 |
| agtacaatgt | tgaatagctg | tggtaaaagt | gggaattttt | ttcttggtcc | tgatctcaga | 36120 |
| gggaatgttt | ataagtaaaa | tgcccttctg | tatcagttga | gatgtacatg | tttttttccc | 36180 |
| tgtgttctat | taatgtgatg | tgttacattg | attgattttt | cttatgttgg | gccaccttcc | 36240 |
| ccttctctgg | ataaatccca | ccttggttgg | gtgaataatt | cttttaatat | gggtctgggg | 36300 |
| ccgggcgttg | tggtctcatg | ctgtaacccc | agcacttttg | gaggccgagg | tggttggtatc | 36360 |
| acgaggtcag | gagttcgaga | ccagcctggc | caacacagtg | aaaccttatc | tgtactaaaa | 36420 |
| atacaaaaaat | tagcctggta | tggtggcaca | cgactgtagt | cccagctact | caggaggcta | 36480 |
| aggcaggaga | atcgcttaaa | cctggggagg | ggagggttga | gtgagccaag | actgcggcac | 36540 |
| tgtactccag | cctgggtgac | agatcaagac | tccgtctcca | aaaaaaaaaa | aatgctgttg | 36600 |
| gattcaattt | gctaataatt | tgttgaggat | ttttacatct | atattcataa | cagatattgg | 36660 |
| tctatagttt | tcttgtagtg | tttttgctg | gctttcaaaa | atcacgtaa | tgctagtctc | 36720 |
| atagaataag | ttaggaagca | ttctttcctt | ttcaactatt | tggaagagtt | tgagaaagac | 36780 |
| tggcattaat | tctgctttta | atgtttgcta | gaattcacca | gtgaagccat | ctggtcttga | 36840 |
| gcttttcttt | gttgggacgt | tttagatttt | tgattcaatc | ttcttactag | ttatcagtct | 36900 |
| attcagattt | tgtttcttta | tgattcggtc | ttggttaggt | gtagagttct | aggaatccat | 36960 |
| ttcatctagg | ttattcaatt | tgttggcata | cagttgtcca | tgatactcta | cgatccttta | 37020 |
| tatttctgta | acattggtaa | taatgtcccc | tctttccttt | tagctgattc | ttccttctta | 37080 |
| atcatctaaa | gttttgtcaa | tcttggtgat | ctttttgaag | aaccaactct | tagcttccact | 37140 |
| gatttttgtc | atgtgtcttt | tatttccctc | gctatagtat | ttattttctt | ctggttagctt | 37200 |
| tgggttttagt | ttgttctttt | tttccctaatt | ccttcaggta | taatgtaagt | tgttcatttt | 37260 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|-------|
| taaccttctt | tttaataata | agattttacag | ccataagttt | ccttggtcat | ggtgaataat | 37320 |
| ccttcttagc | actgctttcg | ctgcattcca | taagtttttg | tatgttgtgt | tttcatttgt | 37380 |
| ctcaagatat | tttctaattt | cccttgtgat | ttattctttg | accactggg | tgtttgaaag | 37440 |
| catcttggtt | catttccaca | tatttatgaa | tttcccagtt | tccttctggt | actgattttt | 37500 |
| agcttcattc | tggttggtgc | agagaaaata | ccttgtgtga | cttcagtctt | cttaaattta | 37560 |
| ttgagacttg | ttttatgacc | tctctggaga | cagtctattc | tgagagaatga | atgttccatg | 37620 |
| tgtatttgag | aagaatgtgt | actctgctgt | tggttgagg | gtttgtgtat | gtctgttagg | 37680 |
| tccagttggg | ctacagtgtt | gttcaagtcc | tgtatttcct | tattgatcct | ctgtctagtt | 37740 |
| gttctattaa | taattttattg | aaagtggggg | attgggctgc | gcacagtggc | tcatgcctgt | 37800 |
| aatcccagca | ctttggggagg | ctgaggcagg | cgttcacttg | aggtcaggag | tttgagacca | 37860 |
| gcgaaacccc | gtctctaata | aaaatacaaa | aattagccaa | gtgtgggtggc | acatgcctgc | 37920 |
| aatcccagct | accctggagg | ctgaggcagg | agaatcagtt | gaacctggaa | ggcagagggt | 37980 |
| gtagtagacc | aagattgcac | cactgcactc | cagcctgggt | gacagagcaa | gactctatct | 38040 |
| caaaaaaaaa | aaaaaaaaaa | aagtggggta | ctgaagcttt | ctactattat | agtggagcta | 38100 |
| tttcaccctt | cgcttttgct | gtgagcctct | ctgggtttat | cctagctgaa | atttgtcaag | 38160 |
| cttcttaaat | ttgtatgtcc | atctctttct | tccaatttga | gaaagttttg | tccattatct | 38220 |
| tttcaaataa | gctctgtcct | cttccctttc | tctctttctg | gaatttccta | aattggacct | 38280 |
| gtcctaaatc | ggacaccttg | atgtgttcca | taaatccctt | gagctctctt | cattttttct | 38340 |
| ccttgctcgt | ccagttcagt | gatttcaaatt | gatcagtttt | ctaaggtgtc | tgattctttc | 38400 |
| ttttgcctgt | ttgagtctgg | tggtgaacca | ctgtattgaa | tacttcattt | attgtatttt | 38460 |
| tcagtgccag | aattttggtt | ttttagataa | tttctatttt | tggttgatat | tctcattttg | 38520 |
| ttcatacatc | actatcctga | tctccttttag | gcctttgtcg | tggttctcca | tagatctctg | 38580 |
| ggcatattca | agacaactgt | tttaaagtct | tttctaacaa | gtctgatgcc | tttgtttctt | 38640 |
| cagggatggg | ttctagagat | atatttttgt | cctttgaatg | ggacatgttt | tcctgtttct | 38700 |
| ttgtattcct | tgtgattttt | tttttttttt | ttaaactggg | cattcgcaaa | agcagtcctc | 38760 |
| tcttccagtc | tttgaagagt | gggtggggaaa | agcttcacta | attcagaggg | tatatcgtaa | 38820 |
| tagttgctat | cagcctgagg | cgacagctta | aggctcatct | aggctcttta | ggggcctctg | 38880 |
| tttttctttc | gtttatacca | tatacatggc | tgcttttcaa | agtcttaatt | tttagccagg | 38940 |
| cgcggtgggt | cagcctgtga | atcccagcac | tttggggagg | cgaggcaggc | agatcacgag | 39000 |
| gtcaggagat | cgagaccatc | ctgggctaaca | cagtgaiaac | ccgtctctac | taaaaatata | 39060 |
| aaaaattaac | tggtgtgtgt | ggcgggcgcc | tgtagtccca | gctactctgg | aggctgaggc | 39120 |
| aggagaatgg | cacgaacccg | ggagggtggg | cttgcagtga | gccaaagatc | cgccactgca | 39180 |
| ctcctgccta | ggcaaaagag | cgagactccg | tctcaaaaaa | aaaaaaaaag | tcttaatttt | 39240 |
| tcaaaggggc | ttaaaccagc | tgcttcttag | gaataagatg | ttctcttata | ttttctgccc | 39300 |
| ataatctctt | gccccaggta | tccactgtgg | tgccccctgg | agattttaca | tgctctacct | 39360 |
| gccactgcct | tccatggctc | ttgccagcct | gagatctgaa | ctatgccacc | ttccctgttt | 39420 |
| cacctctgag | tcagatgaca | tagaaaccag | tccttcagg | agcccaaaga | cagggcagaa | 39480 |
| cactgcaaat | cagttctgct | ctgctccctc | cggtgcaagg | gaagacactg | gaaattgggg | 39540 |
| tgcttctctc | caaacaccca | gttgtgccag | ggaggaatgg | gggaagggca | aataaaaaatg | 39600 |
| acataaaaac | tattttcaat | gtggcttttt | cttgattggg | tggttcagctg | gttgctatag | 39660 |
| acctttgggt | ggttcccaga | gctcctagtg | agtgcctagt | tgtttttttt | ttccctcaat | 39720 |
| gtttccttgg | ggaaatgtgg | gcctggagct | tcctgggtctg | ccatctccaa | tctctcttga | 39780 |
| ttggagaatt | caatccattt | tacattttaa | gtacttactg | ataagaaggg | acttacttct | 39840 |
| gccattttaa | cttttttttt | tttttggttc | ctcatttcct | ccattactgc | ctttcgtgtt | 39900 |
| tagttcattt | tttatagtga | cacggggatt | acacttgaca | tcctaacatt | acaacaacct | 39960 |
| aaatcgaatt | tatatcaacc | taatttgaat | aacatacaga | actctgctcc | tgtactgctg | 40020 |
| tctcccttac | tgttactgac | atcacaaaat | acatctttat | acgttgtgca | cccaatatta | 40080 |
| gcagttgtta | atggatctgt | cttttttaat | atgtagaaaa | taaaaagagt | tacaaacctat | 40140 |
| cattagaata | tactagattt | tataactgtc | catgtattta | cctttactgg | agatctctat | 40200 |
| ttcttcttac | aacttcaagt | tgtaagatgc | ttagtgttct | tttaaagaag | tttatagtgt | 40260 |
| tcagcgtttc | aacctgaaag | actccttcta | gcatttcttg | caaagaatga | taatgaactc | 40320 |
| cctcagcttt | tatctgggaa | ggatattaat | tcttccctcat | ttctaaagga | cagttgttag | 40380 |
| atgtagaatt | ctaacagggt | ttctttcttt | cagcagtttt | catatatgag | cccattctct | 40440 |
| tctgattccc | aaagtttctg | atgaaaaata | tgctgataat | cttgagaatc | tcttgatagt | 40500 |
| gataaattac | ttctctcttg | ctgctttcaa | ggttttcttt | tgtcttcaat | gaagtgtctt | 40560 |
| gggtgtgtgt | tccttgagct | tatcctatcc | agagtttgtt | atgctaattg | ggtttgtaga | 40620 |
| tacatttttt | ttttaatcaa | atatgagcag | ttttctgtgt | aactttcttt | aaatacactt | 40680 |
| tctgcccttg | cctctctact | tctgggtctca | tttatggcat | tccataggta | ggttccttag | 40740 |
| gttttcattt | actttcttca | ttttttttct | tttgattccc | cagattcaac | agtttcaatt | 40800 |
| gccctatctt | caagctcatt | gagtggttct | tctacctgct | taaatatttt | gaacccttta | 40860 |
| gggaattttt | catttcagtt | attgtacttt | ttatagttcc | agaatttgct | tcctttataa | 40920 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aatttctatt | tattgatatt | ctcattttgt | tcatatactg | ttctcctgtc | tttgttttcc | 40980 |
| tttagctcct | tcagcatcct | tcaaacagtt | gttttaaagt | tactgtctag | taagtctgct | 41040 |
| gtcagcgctt | cctcagtgat | ggtttctggt | gatttgtttc | tttgaacgtg | ccatactttt | 41100 |
| ctatttcttt | gagggctttg | tgattgtttc | ttgttcaaaa | ctggacattt | gaatcttata | 41160 |
| actctggaaa | tcagattctc | cttttttccc | ccccaaagcat | ttactcgtct | ccccacacca | 41220 |
| actgttgagg | gtatctcagg | atcagcttga | ggtgaaagct | taaagtcttc | ccagggtctct | 41280 |
| tctgagcctg | catatttctc | taggtatgtg | gagtggcttt | ctaaattgcc | ctgtatacac | 41340 |
| atttatttca | cagttgattt | ctctgctcag | ggactcacia | ggctgcgac | aagggtgtcag | 41400 |
| ccagactgta | ttctcatctc | tcggtctcaac | cagggagaat | cttcttgacg | gctcctccag | 41460 |
| gttggtggca | gaattcattt | tcagtgtgact | ttgtgatgga | gggacctggc | atcttactgg | 41520 |
| ctggtggcag | gaggcccaag | taagttgtcc | gcacatgtgc | ttttcaatat | cctcatcctt | 41580 |
| aagtctggct | ccccaaatgg | aaaaacaggt | aagaagaaaa | acaatagctc | aggctgtttc | 41640 |
| cttaaatcct | ctggaagcca | cttcagccag | tggggaatgc | aacaatggct | acccacctct | 41700 |
| atgtttgcac | ttctgcaatc | aaaacactga | accttgatac | gtggaggcca | gaccttact | 41760 |
| tttcacctg | gctccaggaa | gtcatgccag | gaacacgggc | atggctgcct | accacaagac | 41820 |
| tcaggatggg | gagacgctaa | tatcctaaag | gctgaaattg | accgaaatta | actgcaactt | 41880 |
| accagccaag | attttccttg | gaagttgcaa | gcattccaaat | tagactccag | agttccaaaa | 41940 |
| cggttacctc | agacagattc | tgccactcca | atttttgtct | cgggtgcggag | agagattcct | 42000 |
| tcctcttctg | tcccttctgt | ggatgtcact | cttatatctt | tttttatttc | tcaccttgcc | 42060 |
| acagtcacta | gaatgcagtg | tgtgtctgta | agcttagcca | gcagacacag | tcctgcgctc | 42120 |
| tgatgtctgt | gagaggaatg | agcactctag | gttagggaac | gtgtgtctgg | cttgttgggg | 42180 |
| cattttctac | gtcaaaaagt | cggagtattt | tcagggtttg | atctcagtg | catcactagg | 42240 |
| tagttggggc | tttaaacaag | ttggtaagcc | tatctgtgtg | cccacatcta | ccgtgtctac | 42300 |
| taccttgatc | acttttcttt | ttttttgaga | cagggttttg | ctcttgtcgc | ccaggctgga | 42360 |
| gtgcaaatga | catggtctcg | gctcactgca | acctccgcct | cccgggttca | attgattctc | 42420 |
| ctgtctcagc | ctcccagagta | gctgggacta | caggcgccctg | ccacgacgct | tgtctaattt | 42480 |
| ttgtattttt | agtaaagagg | gagtttcacc | atgggttggcc | aggccgggtct | cgaactcctg | 42540 |
| accttaggtg | atctgcccgc | cttggcctcc | aaaagtgtctg | ggattacagg | catggggccac | 42600 |
| cgcacccggc | caatgacttt | tttaaaacat | gctcttttga | aactctctcg | tttgttcttt | 42660 |
| catcttccct | tccaccacca | taagcactgc | agctccctca | ggaagccata | gcattcctgt | 42720 |
| cttctgattt | ttacctgatg | atcatataca | gatataatatg | tatacatatt | ttttgtgtgt | 42780 |
| gccgattttt | ttccatgtct | atgctctcaa | gaggcaggat | gactttgttg | agagcagagc | 42840 |
| taggatgtag | gatcaaggct | ttataacatg | accttgaata | ttacctgat | accaaagcca | 42900 |
| ggcaccagga | gaaaactaca | aactaatggc | ccctatgaat | actgatgcaa | agattttcaa | 42960 |
| caaaatacta | gcaaaccaaa | tccaacagca | tattaaaagg | actatatacc | atgataaatt | 43020 |
| gggattttat | cctgggatgt | gcaaggataa | ttcaacaaat | gaacaggata | aagaggaaaa | 43080 |
| accacaaaaat | catttttaact | gatacagaaa | agcatttgac | aagatgtatc | accttttcag | 43140 |
| ataataactt | cttccagcaa | actaggaata | gaaggaaaac | acctcaacat | aataaaggcc | 43200 |
| attatgcaaa | accagagctt | aagatcatatc | tcaatgggtga | aagactgaca | gggcttcttc | 43260 |
| taagataagg | aatgagacaa | agggtgaccgt | tttttggccac | ttgtactcaa | cacagaagtg | 43320 |
| gaaattccag | ccagaataat | taggcaaatg | gggaaaaaaa | atccaaattg | aaaaggaaga | 43380 |
| ggtaaaatta | tctgtttaca | gatgacatga | ttatagaaaa | gtctaacgaa | aacaaactat | 43440 |
| tagaataaac | atatttagca | aaattgtagg | atacaaaaaat | caacatacaa | aaatcagctg | 43500 |
| tgtttctata | cactaacaat | aaataatcca | aagagggaact | taagaaaaca | attccattta | 43560 |
| cagcggcatt | aaaaagaata | aacaggaaca | cacttaacca | acaaagtcaa | atacttgtat | 43620 |
| actgaaaact | gtaaatcatt | cattaaagaa | attatagaag | acgggcccggg | catggtggct | 43680 |
| cacgcctgta | atcccagcac | tttgggaggc | caagggtgggc | ggatcacgag | gtcaggagat | 43740 |
| caagaccatc | ctggctaaca | cggtgaaacc | ccgtctctac | taaaaataca | aaaaatttagc | 43800 |
| cgggcgtggt | ggcgggcacc | tgtagtccca | gctactcggg | aggctgaggc | agaatagcgt | 43860 |
| gaaccacagga | ggtggagctt | agagtgaagca | gagatcctgc | cactgcagcc | cagcctgggt | 43920 |
| gacagagcga | gactctgtct | caaaaaaaaa | aaaaaaagaca | ttccaagctt | atggaataaa | 43980 |
| agacatacta | tattgtattt | tttaattttt | attttttttt | gagatgttct | cccatccagg | 44040 |
| ctggagtaca | gtgctacaat | catagctcac | tgcagcctcc | aacttctggg | gtcaagtgat | 44100 |
| cctccttctg | cagccttcca | tgtagctgtg | actacaagca | cacaccaaca | caccagcta | 44160 |
| attttttatat | ttttggtaga | gatgaggtct | cactatgttg | cccaggctgg | tctcaagctc | 44220 |
| ctggcctcaa | gcaatcctcc | tgcctcagcc | tcccaaagtg | ctgagattac | agggtgtgagc | 44280 |
| caacacacct | ggccaaaata | ttgttaagat | gtcattactga | ctcaaagtga | tctatagatg | 44340 |
| caataacaatc | actatcaaaa | tcccaacatt | gggctgggcg | cagtggctca | cgcctgcaat | 44400 |
| cccggcactt | tgggaggcca | aggcgggtgg | atcacctgag | gtcaggggtt | caagaccagc | 44460 |
| ctggccaaca | tgttgaaact | ccatctctac | aaaaatacaa | aaactagctg | ggcgtgggtg | 44520 |
| catgcgcctg | taatcccagc | tacttgggag | gctgaggcag | gagaatcgct | tgaacccaag | 44580 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aggtggaggt | tgcactgagc | cgagatggcg | ccactgcact | ccagcctggg | cgacacagca | 44640 |
| agactccgtc | tcaaaaaaaa | aagaaagaaa | gaaagaaaaa | atcccaacat | tttagcagaa | 44700 |
| acagaaaaat | aaatcctcaa | atttgtatga | aattgcaggg | gaccccaaat | ccagaacaat | 44760 |
| cttgaagag | aagcacaac | taagagaact | tacacttctt | ggtttcaa | cttactaaaa | 44820 |
| agctacagta | agcaaaacat | tgtagtgggtg | gcataaagac | agacagagag | accaactgaa | 44880 |
| cagaacagag | agcccagaaa | tcaactctcc | acaccatattg | cgtcaactga | ttttgggacg | 44940 |
| ccaacaccct | ttccaacagg | atcgtcttct | caacaaaatt | atgttgga | aaccagatat | 45000 |
| ccacaagcaa | aagaattcag | ttgggccctc | agcttatagc | atatacaca | attaacttca | 45060 |
| aagtggacca | aagatctaaa | gtaagtgtta | aaactataaa | actcttagaa | gactacatag | 45120 |
| gagaaaagct | tcatgagatt | agatttggca | atgatttttt | gacattacat | gaaaggcaaa | 45180 |
| ggaaaaataa | attgaactgc | atcaaaatta | aaaacttttg | tgcatacaat | gacactatcg | 45240 |
| acagagtga | aaggcaactc | acacaatatt | agacattatt | tgtaaaccaa | ctatctccaa | 45300 |
| gggattacta | tccagactat | ataaagaact | gtaactcaac | aacaaaaaca | actcaattga | 45360 |
| aaaacgggta | acggactaga | attgcacacat | ctccaaagaa | gatatatgac | tggctcaca | 45420 |
| gcatatgaaa | agctgctcaa | cttcactcat | cactagggaa | atgcaaatca | aaaccacagt | 45480 |
| gaagtaccac | ttcatgcccc | ttaggatgga | tgtcataaaa | aaaaaaaaaa | aaaaaaaaacc | 45540 |
| cagctgggcg | cggtgggtca | cgctgtaat | cccagcactc | tgggaggccg | aggtgggccc | 45600 |
| atcacacgag | gtcaggagat | ctagaccatc | ctggctaaca | aggtgaaacc | ccatctctac | 45660 |
| taaaaataca | aaaaattagc | caggcggtgg | ggcgggcacc | tgtagtccca | gctactcggg | 45720 |
| aggctgaagc | aggagaatgg | catgaacccg | ggaggcagag | cttgcaagtga | gctgagatcg | 45780 |
| tgtcactgca | ttccagcctg | ggtgacagag | cgagactcca | tctcaaaaca | acaaccacca | 45840 |
| ccaccaaaaca | aaaaaacaga | acattgcaag | tgttggcaag | aacgtgaaga | cacagaaaaac | 45900 |
| cttacctatt | gctgggtggga | acgtaaaatg | atacagctgc | tatggaaaac | agcatggcag | 45960 |
| ttctcctcaa | aatgaaagat | agaattccta | tatgatccag | caagcctact | tctgggtaga | 46020 |
| taaccaaaga | actaaaagta | ggaaattgaa | caaataatttg | tatgcctatg | ttcagaggag | 46080 |
| cattattcat | agtggacaaa | agagagagaa | gccaaagtacc | catcagcaga | tgaacgaaca | 46140 |
| aacaaaatgt | ccacacaggc | aacgcaatgc | aattcagcct | taaaaaagta | aggagagtct | 46200 |
| gacacgctgc | agcatggatg | aaccttgagg | tcattatgct | aagcgaaata | aaacagtcac | 46260 |
| aaaagcctgg | gtgctgcccc | tcattgcctgt | aatcccaaca | ctttgggagg | ctgaagtggg | 46320 |
| tggatcgctt | gaggtcagta | gttcaagacc | agcctggcca | acatggtgaa | accctgtctc | 46380 |
| tactaaaaat | acaaaaatta | gccgggtgtg | gtggcggggg | cctgaaatcc | cagttactca | 46440 |
| ggaagctgag | gcaggagaat | cgcttgaacc | tgggaaggcg | aggttgcggg | gagccgagat | 46500 |
| cgtgccactg | cactccagcc | tgggtcacga | cagtgaact | ccgtctcaaa | acaaaaaaca | 46560 |
| acaaaaaaca | gtcagaaaaa | gacaaatatt | gtatgattcc | acttacatga | gggtccctaga | 46620 |
| gtcatcaaat | tcacagagac | agaaattaga | atggtagttg | gcaggggccc | aggggagggc | 46680 |
| tgatggggat | tgagtgttta | atgaggacag | atttttccag | atgggaagat | gtaaaagttc | 46740 |
| tggagatgga | tgctgggtgat | tgctgcacaa | cgaaggtgca | taatgccact | caactgtgca | 46800 |
| cttaaaattc | atcaaaatgg | taaattttgat | gttatacata | tcttacccca | agaataaaaa | 46860 |
| gaagtctgat | catagcactt | accttgaat | gggtgttgga | gaaaaagggc | atattgtctg | 46920 |
| catggtctgg | acctcctca | ctctggagcc | ggcagcctcc | cgggtccagc | tcccagcaat | 46980 |
| gctgtgccgg | gtggacagag | ctgagggttca | tgggtcactga | gttgctgcct | gaagggtctc | 47040 |
| agactccaga | tccttgatct | ttccacgtgg | agctcatgag | agctcctgga | tcttcaccgg | 47100 |
| ggaggtgcta | tctcctgcct | tggccattcc | aaggttgggt | ttccaacaa | ccagggggaa | 47160 |
| ggtgtgggcg | aacctggcag | caggccgggc | ctcttcctca | ccagtagcac | cagctccaga | 47220 |
| ctccattctt | ccagtgtgaa | agacaaatgt | cccccaacc | taacgccacc | cacacatctg | 47280 |
| cacagacacc | aggcttcatg | gagcgcaaga | cgactcacac | agtggcccag | gccttgtcac | 47340 |
| acgcagtga | gacaatcaga | ggagcacggg | caccgctcag | gcctgatgcc | agcaggacac | 47400 |
| ccaccagctg | ccagatgagc | acgcaatcac | tcctcatttg | caaagcacgg | ctcccatcat | 47460 |
| tccagaacct | aagaaactgt | ctcacaaaaga | cagctctctg | caaggaaactg | ggaagtaact | 47520 |
| tgagtccagt | cagaccggca | aaaatcagtc | cctcggcctt | gacctgtgag | cagcatgtgg | 47580 |
| gcttggaaatc | aggctggacg | ggcttccctc | ccagtttctc | cacagctgct | ccaggcctgg | 47640 |
| gacaagcttc | tcaccttctg | tgagctggaa | acccctctc | tataaagtgg | ggaaccacc | 47700 |
| ctctgggctg | agggctggag | cccagcacag | agaccttgat | ggtagctgcc | agtaccgcc | 47760 |
| actgcaaac | agcctgcacc | caggccataa | cccagcaaca | caactgcgat | ctcaagctgc | 47820 |
| caagggacat | cttgtcaagg | ccctttcatt | tgaccctgtg | gtgggatttg | ggtaaactca | 47880 |
| gtcgaagggc | ggagaaggtt | ctgtggcctg | cggcagaggt | gtaaatgaaa | ggcaaggaga | 47940 |
| cccccgctcc | ctggggcctg | ttaaagggcc | tcttcctcga | agaagatgtt | tctgacatca | 48000 |
| tggcgtgtgc | tccttggggg | ctgcccctcc | cacacgaggg | caggcctggc | tgaaggtaca | 48060 |
| cactggatga | aggacaatga | ggaggtagag | ctgggtacag | agtgttcat | gctgagcctc | 48120 |
| cgggcatgct | tcgtgtacac | tccgcacact | ctccacacac | acacgttaca | tggcagcagt | 48240 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|-------|
| cctgaaacac | atgaagatag | ctgaggggctc | cgagagtcctg | gcatgccgac | ccgctgctga | 48300 |
| gatcaggccg | ccattcttgag | agtccccgcac | gccgacctgc | tgctgaggtc | gggcccgcct | 48360 |
| tcctcatcaa | cttgactgaa | tatgctctga | gctggcttcc | caggtgccaa | gtcatggcct | 48420 |
| ccctgtgat | cacagcagca | ctgtgcctgc | ccaggcagcg | cacgctgtca | ccaagaggct | 48480 |
| acgctgagga | gcccacactg | tctctggggc | ctctgggtcc | caaggggcta | gggacattga | 48540 |
| gaggggaagaa | acccctcatg | gaaacaagca | ttttaacata | aacaagggac | aataaacctt | 48600 |
| tttataaaat | atattattcta | aaaaaaaaaa | tcacactgta | caaatttaga | tagaacatta | 48660 |
| tcaatgctca | gatttataaa | aatgggaaca | gaaagactaa | agctagcgaa | ggaacgtaca | 48720 |
| tttctgtttt | gtcttttttaa | attaggaagg | taaaagtgat | tttttcttca | ggtgcagtga | 48780 |
| tagtaaattgt | ctagaagaca | tccgaagagc | cagaaataaaa | aagcacagga | gccgcctgca | 48840 |
| gactctcaga | gttctgtctt | cacccactga | atccgaagtg | gatgcgtgtg | gcgctccccg | 48900 |
| aggggtggcct | ggccccgtgg | atccacgcgg | aacgctcaac | gagattccca | aggctggctg | 48960 |
| tgtacagcct | aaaactttgt | gctcagagaa | aaaccagcat | gatgggttca | tcaactctg | 49020 |
| tttctcaaac | aaaatgagtt | ttctgtacac | ttgttacaaa | ggtctgtaca | aaagcacgaa | 49080 |
| gctgctgtga | ggtgttattt | ccgaaaagagt | taaaaatgga | tggaagggag | ctgttcgtac | 49140 |
| agttccgcct | gtacattcac | agagggagga | caccataaaa | aaaggactca | ctcagaaatt | 49200 |
| ccagaccgga | gaatcctggc | ttcttaaaag | attattttga | aagcttgga | taagtttcag | 49260 |
| ctctgccatt | tccaaccgct | tcgcccagca | tcgtcatagt | tcagcttcct | ctaaaactat | 49320 |
| attctccctt | tcttacacgc | aaactaccag | gaaaataaacc | gcaaccaggt | gaaactatgg | 49380 |
| ggcttctgtg | aatataagga | acgaggcagg | gagaagtcgt | aaaagctgcg | ggctcagagc | 49440 |
| ccggagcgcc | cttcacattc | cgggtggccg | tgggggccac | agtcacagcc | aggggtgcc | 49500 |
| ggcgggggtcc | atgcggcaca | gattgtccag | gctgtttgcc | gcggccacca | gggtgttcac | 49560 |
| cttgctttcc | cgcccttcga | actggcgag | gttgtgcagg | cgggtcatga | tggcggtgac | 49620 |
| ggctttctga | accagggaca | ccagtgtgctg | gctgtccatg | ttctctggct | gcccggcggc | 49680 |
| cgagagagga | gaggacgtgt | cctcttgtgt | ttttttgtgc | caagcaatga | tctcgtcccg | 49740 |
| gagaaccgtt | ttcagaatgc | catccacctg | cgtgaggag | agaacgagac | gacttgtgtt | 49800 |
| taaccaagaa | cagcccacag | gggcagcttc | ctaacaaggt | gggactcaac | cacagcggcc | 49860 |
| gctcagggcc | accaagggcc | agtcgagttt | cagcaccagg | ccaggctgtg | tgccctcagg | 49920 |
| acgggctggg | gaagccgctg | ggggacaaac | cccttcctcc | acttgagca | gcagccagaa | 49980 |
| ggcctcagtg | ttgggcagcg | cggacctaga | tgacaaaggc | agccatgctg | cgactgaggc | 50040 |
| ccaattctgtt | tatttgttca | cttgacacct | tccggcatct | gccgagtgtc | aggcaggccc | 50100 |
| gttccaagca | ctacagacaa | gagtgaacca | aagagaaaaac | catcccttgc | cctcacagca | 50160 |
| aaggacataa | cacacagggg | tgctggccac | tgtggagagc | gcagagcccg | tgaggcacat | 50220 |
| cagcagctcc | tgcaaggccg | tgacgcgcgg | gcatctgagt | ggctctagcc | tgcgctgtg | 50280 |
| ataggacgac | gtggagaccc | accttaaagt | ttggctgggc | gaagcaccgg | gcgaccgcaa | 50340 |
| tcattggacgc | tgtcaacggg | ccggagaccc | cgatgggtgt | cagaaactca | gaaatgttgg | 50400 |
| gcgtgagtcg | aaatgggaca | ggacggttgg | catccaggtc | tccagtcgcg | tcgtttatgt | 50460 |
| caaatcgaaa | gtaggcaaca | ttcagtttgc | cagtgtccta | aatttcagaa | ggagacactt | 50520 |
| taggaacttc | agcagaaaagg | cgatgtcacg | aggagaggat | ctggctgttc | aaagcaggtt | 50580 |
| acctgagcga | tctgtaacat | ctcgggggtg | agtctattta | aatgcaggac | gaattccgcg | 50640 |
| aagcctatca | gagccagctg | gatggtgaac | atcttccgga | acgtccagta | gtccgtggca | 50700 |
| ttggggaagg | tgtgcagcgc | ccactccttg | agcatgctgc | gcggcaccat | gttactctga | 50760 |
| acctccttga | ggatgtcgcg | gaggacctga | aacacagcgc | tccgtgacac | tcccactctca | 50820 |
| ctcactgatt | tttttttgaa | aagaaaaatt | ctcaaattgc | aattcctctt | taacttagca | 50880 |
| ccaagagcaa | attctgtaaa | ttctgggtgac | agatttaacg | cacgcattgt | taggagactg | 50940 |
| aaggcgagga | ggcacaagat | ggctgtttcc | ctccagggtt | cgccactgtc | tgctctaaag | 51000 |
| caccaatgcg | gctggtctgc | gtcaaagctg | cagttacctt | atatgcgata | cctgacaaga | 51060 |
| atgcaggtaa | atatctgaac | atttccaccc | ttgctgacta | tggaatatat | caggccaatt | 51120 |
| aacagaacac | aacagctgga | caacagcagc | accacttcca | accaagactt | tataactaatg | 51180 |
| acagatgttt | cacaaactga | aggagctggt | ctaaccacac | acaccacacg | agagactgaa | 51240 |
| ctctgtacta | gagactcata | gactactgca | gacatcacca | actcagtaag | agttcactca | 51300 |
| gttaatggac | ttcccgttcg | accatctggt | acaggccatc | tacggggctt | tttcccagct | 51360 |
| tagtcttacc | cacgtgctct | gtgggaatgg | ctgtgagaaa | gcaggccctt | ctgccggcaa | 51420 |
| gaacaaggga | ggccaccggc | gacacatgca | gtttgtttgt | ttcctcatcc | gtcaaattggg | 51480 |
| aagaagcact | tctgagactg | caaaggagtt | ccaaaatctg | ctccttaagc | agtgagaatg | 51540 |
| ctggcaaaaac | catcaaaaatc | aactttgtca | gaactctaga | aattaaaggc | ttacaacagt | 51600 |
| ctggaggagc | tttttttattt | agttaaaaaa | caaaaacaaa | caaaaaagcc | tgggctgggc | 51660 |
| gtggtggctc | acgcctgtaa | tcccagcgt | ttgggagggc | gaggtgggtg | gatcacgagg | 51720 |
| tcaggagttc | aagaccagcc | tggccaacat | ggtgaaaccc | catctctcct | aaaaatacaa | 51780 |
| aaattagcca | ggtgtggtca | caggcaccta | taatcccagc | tactcaggag | gctgaggcag | 51840 |
| aagaatcgct | tgaaccagg | aggcggagga | tgcggtgagc | cgagatcgcg | ccattgcact | 51900 |

| | | | | | | |
|-------------|------------|------------|-------------|-------------|-------------|-------|
| cagagcctggg | caacaacagc | gaaactctat | ctaaaaaaaa | aaaaaaaaaa | aaaaaaagag | 51960 |
| aagaatgaag | gagtagaata | aataacaaaa | taaacaagag | gaggaagcgg | ctctgaagct | 52020 |
| ggattcctct | gtgctgtggg | catctccctc | tgcctatagg | ccctggcagc | tgctaagctg | 52080 |
| gaacaaactg | cctagtcggt | cactcacgct | gtttagaaac | aggatgactc | tgaggtcagc | 52140 |
| atgtatttgt | cactggcttc | cacgctgtcg | aaagttaatg | tgccttaag | aatataatcc | 52200 |
| attcctctcc | tgcaaatacc | tcagaactgc | ccatcatcca | cagaatgacc | aggccatggc | 52260 |
| ctgtgccaca | aaaaagccct | ggtgtcaatt | cccaagagag | gccatgaact | ctgtcaacag | 52320 |
| agctgtatca | gaacacggga | tccatgcctc | tgctgcaca | gagctggagg | ctgcacctga | 52380 |
| tggctgcagc | tggaatacct | cgggccctgc | cgtgccctgg | gccacagagt | acaccatggg | 52440 |
| ctcaaccttc | ctcaaccaa | ctaagtcttc | caggagccag | gagaactgga | acaagtccct | 52500 |
| gggtgactcg | ggacaaggtc | acagcatcca | cctctgtggt | ctctccttct | tgggacccat | 52560 |
| agaaaggacc | acggggcacc | cagggagagg | ccaaaacagc | tgcccctggg | tgccccacac | 52620 |
| aatcccccaa | aaatctcccc | acctaagcc | catacctgcc | ctgcctccta | ccaagggcaa | 52680 |
| aaacgtgcag | gtgaatgagg | ggcctctgta | cctccgaggg | gctgcaggcc | agggccaccc | 52740 |
| aagactcctg | cgggcaccat | gctccgggct | caggcaaccg | aaacagctgg | gccccatgca | 52800 |
| ctccagagtc | tgtcgctttt | tgtattttag | aaaacagcac | acatgctgca | catcgcttaa | 52860 |
| cacctccagc | agcacaggag | gtgaacagga | acatgaagtg | gatgaatgaa | gcctataaac | 52920 |
| agcctcccat | cacctcagat | caggtgtggc | tgtcaagtga | gcctgccaga | aacttacttt | 52980 |
| aaaattctaa | tttcggcgct | tctttgtaag | tacaggcaga | gggcaagggg | cctctccaag | 53040 |
| gtcgaggact | gacccgtgtc | tggtcataac | aaaccgtcca | cgacaagtgt | cctctcacca | 53100 |
| aggtaaatag | ctgtctcatt | tccaccatct | catgagtcta | ataaagttac | tttaaatgac | 53160 |
| agaggtggcc | cccaacaaat | gcctgttcat | ctcctaaaca | cccctgtctc | caggcactgc | 53220 |
| cccacacag | agggctgcag | gcggcagctc | ggcccccgcc | ccggccccac | tgctacctgg | 53280 |
| tgggtgctct | gggttccccg | cgcttcagcc | gtagccagcc | ggctatagta | acgggagatg | 53340 |
| gggtgtgcat | gctcgatgcc | cttcttggcg | cagcgctgct | tgtagatctc | cacaagggaa | 53400 |
| agtgaagagg | ggttgtcttc | cacgagcgcg | atctgtgggg | aaactgccac | aaccggggcg | 53460 |
| actggggaga | gaggaagaga | aacggggcag | gctgaggggtg | accgcggggc | agtgtctcagc | 53520 |
| tccaccgtca | gagtgccact | gggagcagag | ctgacccgcc | tctgtatgcc | ttggggggctt | 53580 |
| agctggaaga | acccggtggg | catgcaccat | ccatttgctc | aacagatggc | atgaggctct | 53640 |
| gacggcacga | actgatcgtc | accttgtgtc | cacaaacaga | aatgctttag | aaggcaatct | 53700 |
| taaaaagaca | tcttgcccg | acacagtggc | tcacgcctgt | aatcacagca | ctttggggagg | 53760 |
| ccacagtggg | cggatcacga | ggtcaggaga | tcgagaccat | cctggtcaac | atggtgaaac | 53820 |
| ctcgtctcta | ctaaaaatac | aaaaattagc | cgggtagtggt | ggcaggtgcc | tgtaatccca | 53880 |
| actactcaga | aggctgaggc | aggagaatca | ctggaaccag | ggagtcagag | gttgccttga | 53940 |
| gccgagatca | cggccacgca | ctccagcctg | cgcacagagc | gagactccat | ctcaaagaaa | 54000 |
| aaaaaaaaaa | aaagacatct | taaaaaaa | aaaaataaag | gatagcctat | agtcccagct | 54060 |
| actcgggagg | ctgaggtggg | agaatcgctt | gagcccagga | gttgagggct | gcagtgaact | 54120 |
| gtgactgcgc | cactgcactc | cagtctgggt | gacagagcag | gaccctgtct | aaaaaataag | 54180 |
| aataaacatg | gctggccatg | gtgggtcacg | cctgtaatcc | cagcactttg | ggaggccaag | 54240 |
| gtgggtggat | cacatgaggt | caggagtttg | agaccagcct | ggccaacatg | gcaaaacccc | 54300 |
| atctctacta | aaaatacaaa | aattagccag | gcgtggtggt | gcgcacctgt | agtcccagct | 54360 |
| actcgggagg | ctgaggcaga | agaattgctt | gaaccagga | ggtggaggtg | gcagtgaact | 54420 |
| gagattgcgc | cactgcactc | cagcctgaat | gagagagtga | gactccgtct | caaaaaacta | 54480 |
| aaaataaaaa | aaaacagact | ctgccaaatg | ctcactctta | gaggctttcc | ttaatcagag | 54540 |
| tctatgggaa | gagtcgggcc | ttcctgctct | gagacagctg | ctgtctaattg | atgcaaactt | 54600 |
| gtctttcagc | acctaggacg | gctgtgcccc | atctttggag | gaggaaaatc | atccctcagg | 54660 |
| tcatcttctg | tgttctgtcc | acataaggaa | agcaaccagc | atcaacctga | tcgtctagcc | 54720 |
| ccattaatgt | gtaaatccct | gtccacacat | ggtgaccagt | actctgttcc | caatcaccat | 54780 |
| tcggtatttg | agatgcagtt | aatctacaac | ctgccagaca | ggatgctaac | ctgcaccgaa | 54840 |
| accactgttg | tctgagtcag | ctggaggcgg | caggagcgct | gggcgaccac | tccagctcct | 54900 |
| gtctcccgag | tgacgtcacc | ttggggagca | gcaccagact | tgtgtgcagt | ttcttgtcca | 54960 |
| aaagtgggat | aatagtaact | accccatagg | gtgtttgtg | gattaaatga | gataatactt | 55020 |
| tgtgaagata | ctaggttcag | ggaatattca | gatattctgt | tgcaatgaag | ttggagggag | 55080 |
| ctgaaagatt | tccagaagat | ggcagattaa | gcctgcccgg | tgagggtccc | agtggcagct | 55140 |
| gtgtcccagc | cactgtaacc | cctgacgtgg | agtcaggggc | atgtgaagtg | cacacagatg | 55200 |
| attctgactt | ctgtgaacca | agtggctgat | tctgtctaatt | gtcagttaag | ccacagctga | 55260 |
| tggcttgctg | tcctggcgtc | taccataaaa | gaaatcccca | aatgactcca | ggacacacat | |

| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|-------|
| ataaaggact | agataacata | cattgcagcg | ggctcccgac | ttcagggatt | acatgctaaa | 55620 |
| aagtcacaa | agtggctctc | ttctctggat | aacattataa | gcattctcatc | tacgtgccgg | 55680 |
| tacaatcagg | ccactcacga | taactcagtg | acaaagactt | cattcagagg | ttgcttatca | 55740 |
| gctatttggt | ccccctggc | aatttctgtg | gccttaacag | ggcagctaga | ctttcccgag | 55800 |
| tcctgcattt | caccagga | tgaaattcag | ggagggccca | gagtgacgag | tgtgaagcag | 55860 |
| ctagaggcgc | gctggaaacc | tgatgcatgc | tgctgcctcg | ctggcgccca | ggctcggccg | 55920 |
| gggtggtttc | acttctcctc | ccagcagcct | gggttcccg | gaggagaagc | aaaaccggca | 55980 |
| gcacccactg | agacgcccc | gctctccagg | ggccactcc | gtagagtgc | aaagacctta | 56040 |
| gaacagggat | gtccaatctt | ttggcttccc | tgggccacat | tggaagaatt | gtctcaggcc | 56100 |
| acacataaaa | tacactgaca | cgacaggtga | tgagctaaaa | aagaaaaaaa | aaaagaaaaa | 56160 |
| gaaatctcat | aatgtcctaa | gaaagttgac | gaatttgtgt | cgaaccacat | tcaaaggcat | 56220 |
| cgtgggcccc | atggagcccc | caggttggac | aagctcgctt | tagaggaaaag | gtggacacag | 56280 |
| ctctcatctc | tcagtgaaga | gcctgaaggc | ctggagctgc | tcctcttctt | gaggccttcc | 56340 |
| ctgggtcagca | cagactacaa | cattctctgc | tgacgcagct | ggaccctcaa | aggctaacgt | 56400 |
| gagctgcctg | tgacccccac | gaggtgtggc | tctcatcccc | acctgtgaag | ctgcctgtgt | 56460 |
| accagcgag | ctgtggctct | caaccctacc | tgtgaaaaac | aagtgcctct | tgggtggtctc | 56520 |
| ctttctcttc | tccaaacagg | ggttcagcag | acgcagcagc | tgcaacacac | gctcctctcg | 56580 |
| ccgtgactct | gtgaggcagg | cgtcgttcat | gacgaggtat | gggtagatct | tgccattgtg | 56640 |
| tccccggatg | tacagccgcc | gggctgcggt | gttgtgcttc | tgcacaatct | ctacccgggg | 56700 |
| catgaacctg | ccagagcgag | aagccatgag | gacatgccct | gcattctctgc | taccagtcct | 56760 |
| tgtcttgaga | agaagctagg | aatgtccgaa | ctgtcacggg | aaaacggact | gtgtaggcca | 56820 |
| gcggctcggtt | atcaatttat | ttgtaccctg | cctcaccctg | atgcggtgta | aatgagtcac | 56880 |
| aatattttca | attcagcagc | cacggacgga | agtcaaggag | gagggagagc | tggccaggac | 56940 |
| aggagccaga | tttgagggaa | agggcaacta | aactctggac | atatagaaaa | gcagagctgt | 57000 |
| gtctggttca | gaaataaaga | cgaacacac | tttttgtaa | aagaaacctc | ttcaaagccc | 57060 |
| tttcagcatt | tcaaatagaga | tcagcacac | tctaggaaat | gctacaatca | tctgattctg | 57120 |
| cctcaatact | gtgcttcgag | gatttacaag | agtgggacac | acactgtttt | gtcaagttct | 57180 |
| atggtgactc | ggaagaaggt | ctgctgaatg | caaaccacga | ctgcactcag | gacagctaac | 57240 |
| cagtcagcgc | gggcagaact | tgtaaagtgc | ctgaccactt | acattccaga | atcatcttat | 57300 |
| gtttctccat | gtcagggaat | ctgtgtccaa | aattccccac | aggggtccacc | ctggagctcc | 57360 |
| catggggctc | catgtccatg | ggcgccgttg | gttagttcca | cctgccaggc | tggccactc | 57420 |
| accgtgcaat | cttgatgtaa | taatgcgttg | gctttggcat | cagaaaactcc | ccaggaattt | 57480 |
| ccacttcagc | tgtctgtgcc | gagaaattgc | tcaagaaccg | gcacttttcc | tctatgagga | 57540 |
| agaatttggg | gagttgcttg | gtcttggcct | ccaagatttt | gatccacttt | ttcaacttag | 57600 |
| aaataagatt | atgaagcttc | atggatcctg | gaacgctgaa | gtcaaaatc | | 57649 |

<210> 12124
 <211> 5541
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|------------|
| <400> 12124 | |
| tttttttttt | gttgtttttt |
| agaactcaaa | agccacagca |
| ctgaagccct | caagcaagag |
| actggccatg | taaaaaaata |
| tctttctttac | agtatatata |
| ttgtttttga | gacagtcctg |
| tcactgcaac | ctctgcctcc |
| tgggactaca | ggcgcacgcc |
| gttttgccat | gttggccagg |
| ggcctcccaa | agtgtcgaga |
| ttaaagctgt | tttccgattt |
| cagtagtgct | tgtgtcagat |
| agtctcttat | gaaactaatt |
| tggagtgtgg | ctaccactcc |
| cacacctgtt | ggtaaggaaa |
| atctgacatt | tctgggtccc |
| tattgcaaat | gttttcttcc |
| tcctgtatgg | tttacaataa |
| tttgagatgg | agtctctgcc |
| aaggagaaat | tctagagttg |
| acactgtata | gagcggcttt |
| attgctaaac | ttaacataca |
| ttttctcttg | atttagtttt |
| tgacgtggca | cgatctcggc |
| gcctcagcct | cctgagtagc |
| gtatttttag | tagagatggg |
| tcaggtgatc | tgcccacctc |
| gcccggcctc | atgttatttt |
| tgccaattct | caatgactgg |
| tcccacacaa | aggttgtcag |
| aattaatatt | ggtgtttcag |
| tctgccagg | cttatgtaca |
| gatgtattgg | gcttcacttt |
| tatgacacac | gtaccttgct |
| agtctccata | gtagattatt |
| gtcctggaac | catccattga |
| | 60 |
| | 120 |
| | 180 |
| | 240 |
| | 300 |
| | 360 |
| | 420 |
| | 480 |
| | 540 |
| | 600 |
| | 660 |
| | 720 |
| | 780 |
| | 840 |
| | 900 |
| | 960 |
| | 1020 |
| | 1080 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gacgagtagc | cacatttcct | tgggggaacc | agttctagat | gctgctgaga | tgccccgtga | 1140 |
| gatgatggaa | ggttcctgtc | ttggaaccca | aggatgcggg | gtcagatgct | agctgtgaca | 1200 |
| ccctctgaca | tgtgatttgg | ggcaagtgc | ttcatattct | aacttggttt | tccacacctg | 1260 |
| tgaatgggg | taatgcagct | ggctctggac | catgggtggg | gccaagggtcc | tgctccaagc | 1320 |
| atggctgtgg | cgtccattac | gggaacgcac | catgttggct | gcacacccta | ctcacaaggc | 1380 |
| ttttgtcctt | tagtagttta | gtgcttggag | ttagatggat | gtggaaagta | tgctctgaag | 1440 |
| ctccagaaaa | aagagtgcct | gccctggaac | ccagctctgt | agagacagaa | accatcctta | 1500 |
| attgcttacc | ctagaaagcc | agaagtcact | gtacatcctc | tgggtcacaa | ttttgtattt | 1560 |
| tttggtttgc | tacgatagct | tcttaaagga | tgtctttttc | tttgcacaaa | tactggaaat | 1620 |
| gagcttcccc | ctggaaatat | cgagtcagaa | gttgaatatt | catttcatct | tttaaggatc | 1680 |
| tgtcatcttg | ttagttatga | gatctatttt | gtttttgcag | ggaattttcc | agactgccct | 1740 |
| gttttggtct | cagatcaagt | cccagaggaa | cagacagaca | cgcagtacat | cgttagtggg | 1800 |
| gacgttgctt | gacagccagt | ctaggttaca | ggggctgcca | aagaggcatt | cccagtcag | 1860 |
| agaaagaatt | tctccaaag | acagacaaac | agaaaacaag | tggagagctt | tgctctgata | 1920 |
| gaagcagtaa | atagtaactt | ggttatgttt | tggtttgtgaa | ggcccaagac | ttactttact | 1980 |
| gtgtgttgat | tgggcacagt | ggctcccagc | acgttgagag | ggcaaggcag | gaggttcact | 2040 |
| tgaggccagg | agtttgagag | cagcctgggc | aacctagcga | gacactgtct | ctacaaaaaa | 2100 |
| gcaaaaacaa | attacaaatc | tttgtattag | aagcagaaaa | acacagggga | catggagaa | 2160 |
| tcatacccaa | ccctgcccc | ccccccattc | ctctccccct | ccacatatac | ttctcactgc | 2220 |
| ctgtccttgg | ccttgaggtt | ggctcctagg | ctggactgcc | cacacggtga | ctctcttttg | 2280 |
| tccttttttc | gctttaaccg | gatcgacatt | ccaccatatg | agtcctatga | gaagctctac | 2340 |
| gagaagctgc | tgacagccgt | ggaggagacc | tgccgggttg | ctgtggagtg | aaaagcaacc | 2400 |
| aaaggcaaca | gagtctagct | catggccacc | agacaaaag | catccagctt | ctgtgcacct | 2460 |
| cctgcaaaag | tggcagaggg | cctggaattc | cagatcacct | gaggggaaag | ggttgtctct | 2520 |
| ctcctttctg | ttgggggagg | gggatggggg | acttttgttg | gtggctccca | cccataatc | 2580 |
| cctcctttac | catagtactc | ccaccacttt | ccatcaccca | tccaataaaa | tgagccagg | 2640 |
| tttagccttt | ggctttgggtc | acacaggata | ttctgctgtg | gttgcaaccc | atgtggtgat | 2700 |
| aaggctcaca | gccctgagct | ctttacggga | gcatacaact | acagttaggg | gactgggctg | 2760 |
| ggctgattga | gggtttggaa | ctgggtggct | tgccagctat | tccatctcaa | aacagccttg | 2820 |
| aggccccctt | tcaatttgag | cagctgtctag | atatcttatc | agagctcaga | ttccagattt | 2880 |
| cacatccag | cagccgggtt | tgggtagcag | atcaatttcc | aactggaaaa | taactatata | 2940 |
| atgtatgctt | attggaattc | tgccacagca | ggaaagcttg | gtcaaaatgt | gtttcccctt | 3000 |
| tgaaggagaa | aggaattgga | gcagcttttc | ctggaggccc | aggatatatt | ttttctgggt | 3060 |
| atcttggtct | aaaattttgt | tttacataga | gaaaaacgat | cttttaaggg | tcctttttgc | 3120 |
| tgcattatct | gtccaatttg | actttttttt | cagtgaatac | accatgtcat | ggagtgtagg | 3180 |
| aaagagcaga | ccaaaatcag | ccctagagcc | aaccagtcag | tcccaaagct | gtgacctctg | 3240 |
| tgccactgtt | gtccatagaa | gagcatcgac | tgtgtcactt | aaaatatatt | tacacatgat | 3300 |
| tgcagcaact | gctaagagct | aaactaacia | aatttgtgtc | tcataagctg | tggtttgggt | 3360 |
| tgaactcgct | taaaagcaat | ggtgaaagga | taacctcgat | gatgtaaatc | cacccaaaga | 3420 |
| tactgtttct | caaaaagttag | ggtgtggacg | caaacctgtg | acagcagagg | gggacgactt | 3480 |
| cacactcact | gcccactgtg | gcccctttcc | cagtggcagc | tggtgacact | aacgattgct | 3540 |
| actcggttca | cttgcccaga | tgtcttcata | tgatgagcaa | ggccagaagc | aaggctagat | 3600 |
| tcgaagtttc | tgacaccatt | tccagttttg | acaaaagtca | gtattttatc | ttaaagtggc | 3660 |
| ttgatttcca | atagctgaac | ttgggcagaa | aacagcaggc | caatgttcct | atgtggtttc | 3720 |
| tttggtgttg | ttttgttttg | gggtgggggc | aagtacaggg | taattcatga | gcaagacatt | 3780 |
| tcactgctgt | cgaagtctct | gggatccccg | tgtgggtctg | agatggcctg | ggaaggacct | 3840 |
| tgtggacaat | ggtttttatc | gttctttttg | tcactgttaa | tttctgggct | gctgaggttc | 3900 |
| tagaatagaa | gggctgcca | atgaggtttg | ctgcaggagg | aaagtttaat | ccccatttcc | 3960 |
| aaaagtccag | gccaaatggt | gggcttagcc | tctttgaaaa | gttctgcctt | gccccacag | 4020 |
| gtgggacac | cctgtgtctc | attcaccatg | atgcttctct | aggggtgtct | agaagcccgt | 4080 |
| tccccagtgg | ctgtatccag | ccttttcttg | catcatcttc | ctcttgaagg | ggaggaagtg | 4140 |
| aaaactacag | acctcccccg | gacagccccc | tctctatcac | gagcctaacc | cgcgaggagg | 4200 |
| ggaagagaca | tccattcgag | aactgaagcg | gcctccggga | tgaggtcaga | ggccccacct | 4260 |
| gattttcctg | gtgggtggtat | ccaaaatcct | cagtaactag | gaaggaaacc | agggctctcat | 4320 |
| ggttttaaag | actttgaagc | aggaatgttg | catttgacgc | ctttaaaact | acctttttgc | 4380 |
| tggtgggagg | agtcgggggc | gagccttagc | agctgcaccg | ccatccccat | gctggttggt | 4440 |
| gctgcccctg | ctctcgtgcc | gggtgtgtgc | tcagcccaga | gccagagggc | tgggtcccgg | 4500 |
| gtcctccaca | ggtgacccc | gtggacacac | gcgttcccat | cctggccctc | gtctctgctt | 4560 |
| ttccacttct | acctgcgtgt | gggtttgccg | ccttgtcatc | ggttgtgtga | gtgtcgcaga | 4620 |
| cctttccaga | gctccgggtt | actctttcca | aacaggcctc | cctgtcgggt | gcactgcact | 4680 |
| cctagaacct | tcagttttct | cgatgggttg | tttggtcctt | ttgaaccacc | ccaaagaact | 4740 |

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|------|
| caacatggca | aagcaaattg | taaaagcttc | ccgactgttc | tactttgggt | ccgcgcgaag | 4800 |
| cccactcacg | tgtgatttgt | gttgcccttc | tcggtggtcc | caggcgatcc | agccatgccc | 4860 |
| cctgcccctc | tgcccagatg | cttcaggggc | ccggcttttc | aggcttgccc | tcaccagcgg | 4920 |
| ccgtcagccg | acactcaggg | atgtagctaa | caccactccg | ccagtgcctt | cagtaggaag | 4980 |
| agctgaggct | gcctgggagg | cccggggcga | ccggaataag | gctctctcaa | gttctgaaaa | 5040 |
| gagaatctgc | caccagatcg | aatttcgacc | cctgagcttg | ttcggacgta | tggtccaaat | 5100 |
| tcagattaag | gtggtcaccc | aacccgagat | gtcaggaaag | gccttctgca | gagaaaatgt | 5160 |
| ccccccaccc | gccatctgca | gccagggtgtg | tgccacacgg | cagccttccc | gaaacatagt | 5220 |
| atggatttta | aaaatgtgtt | tatttttgtt | tctcaaccac | tttataacgt | attttttaat | 5280 |
| ttattttgta | atgtcttgtt | ttgaagtatt | gctgctatcc | ttgttatcct | tcccactgtt | 5340 |
| tttatcactg | atattttttg | tgaaagtgtt | acactaatgt | tctatgtcaa | aatcaaaagt | 5400 |
| atttaatgaa | atactagtcc | tatttaaatgt | ggttatggaa | ccagctggaa | acacaaaaca | 5460 |
| aacagtgatt | gtacagcagg | ctgggcccag | gaggtcaggt | tcattttgtt | acatatgcaa | 5520 |
| taaactcacg | actttacatt | t | | | | 5541 |

<210> 12125
 <211> 296
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 12125 | | | | | | |
| gcctgtaatc | ccagcacttt | gggaggctga | ggcgggaggga | tcacgaggtc | aggagatcga | 60 |
| gatcattctg | gctaacaatg | tgaaaccccg | tctctactaa | aaatacaaaa | aaaattagcc | 120 |
| gggctgtgga | gcggggcgct | gtagtcccag | ctactcggga | ggctgaggca | ggagaatggc | 180 |
| gtgaaccccg | gaggcgcagc | ttgcagtga | ccaagacagc | gccactgcag | cccagcctgg | 240 |
| gcgaaagagc | aagactctgt | ctcaaaaaaa | aaaaaaaaaa | aaaaaaagga | aggaaa | 296 |

<210> 12126
 <211> 101
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12126 | | | | | | |
| ccagcacttt | aggaggccga | ggcagggtga | tcacgaggtc | aagagatcga | gaccattctg | 60 |
| gccaacatgg | tgaaaccccg | tttctactaa | aaatacaaaa | a | | 101 |

<210> 12127
 <211> 126
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12127 | | | | | | |
| taatcccagc | acttttgggag | gctgaggcag | gtggatcatg | aggtcaggag | ttcaagacca | 60 |
| gcctggccaa | catggtgaaa | ccctgtctct | actaaaaata | caaaaattag | ccggacatgg | 120 |
| tgacac | | | | | | 126 |

<210> 12128
 <211> 275
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12128 | | | | | | |
| gcctgtaatc | ccagcacttt | gggaggctga | ggcgggtgga | tcacgaggtc | aggagatcga | 60 |
| gatcatcctg | gctaacaatg | tgaaaccccg | tctctactaa | aaatacaaaa | aattagctgg | 120 |
| gcatggtggc | gggcacctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatgggtg | 180 |
| gaagctggga | ggcggagctt | gcagtgaacc | cagattgtgc | cactgcactc | cagcctgggt | 240 |
| gacagagcaa | gactctgact | caaaaaaaaa | aaaaa | | | 275 |

<210> 12129
<211> 170
<212> DNA
<213> Homo sapiens

<400> 12129
aaaagactgg gccacgtggc tcatgcctgt aatcccagca ctttgggagg ccgaggtggg 60
tggatcatga ggtcaggaga tgcgagccat cctggctaac atggtgaaac cctgtctcta 120
ctaaaaatac aaaaaattag ctgagcttgg tggcaggtgc ctgtagtctc 170

<210> 12130
<211> 5125
<212> DNA
<213> Homo sapiens

<400> 12130
tcccagcact ttggggaggcc gaggcgggtg gatcatgagg tcaggagatc gagaccatcc 60
tggctaacaa ggtgaaaccc cgtctctact aaaaatacaa aaaattagcc gggcgcggtg 120
gcgagcgct gtagtcccag ctactcggga ggctgaggca ggagaatggc gtgaaccggg 180
gaagcggagc ttgcagttag ccgagattgc gccactgcag tccgcagtc ggcctgggag 240
acagagcgag actccgtctc aaaaaaaaaa aaagaaagtg tggagttagg gccttgctgc 300
tggcttatct ctcttaaggc tacaagcgca atcaatgctg gcagtgttgc tgggacccaa 360
gcctctatgc ccagatggc aggccccatt ccattcctgga tgggtgtgac gtgggcactg 420
cagatcgagc agggagccct ggagaagtgc tagggctggg gaaaggggag gaggcagcct 480
gagccatgga agaaaccatc ctggtcactg catgcttggg tactcagcct acttccttgg 540
ttccatctaa cagtccccag agccctagga cctggatctg ggccttgctc accctccctg 600
ttctcaaat ccttcttggc gatccaactc ctttcagacc tcagggtctt tgcatgtgtg 660
actctctgcc aaaaaccctc ttctctcaac actgtttctg gtgggttttc cccggttgat 720
aaggcctcag caaatgtca cctcctggga ggcttccctt gcctctctat tcagctattt 780
atagcagcct cctgtcattc ttccacactg tttgtacaa tttgtgcttt aatagtcatt 840
tggttcctta ttgggtcaag ggtcagtgtt ggtgtgggca ctgctgagtc cactgtgccc 900
agaagacagg gtccacagca ggcactccat aaatacatgt tgcaggactg ccctcactgg 960
ctcactctgt ggagttaggg acctaattggg cccattttac ctattgcctc tgaaagttaa 1020
agggcaggaa caaggtggag ggccactgcc ctctggcctg gcatggccca gaggcagctt 1080
ggggttagct caaggcagct aagcagggtc agcccaagaa ctaagtcaag tgggcccagg 1140
aggctctgag agtggccggg gccggcgtag attccctggc atgggtgaga actgcccgtg 1200
ttctggagc acattcatct catgagaggt gctggggccc aagttcatgt aggttgctgg 1260
cagctgcaca taatgggtcc caagcagtgc agacactatc tgctccacct cccccactag 1320
tactccgaag gtgggtcgca ctgctgggtc tgctccctcag cattgctgca tcaattggta 1380
cctgttgggg gaaagggatg tcagggttaag gcaatttcca cccaaggatt ctgggccacc 1440
cacttgctgt taaacctctg gcaggccaca cagggtatgag gatagatgac aggacctagt 1500
acctagcact acccaatcag gggcagctct tctcatcctt atgattactg ttccagtcct 1560
gccttcccac cctggcagag gtcgaactac ctcagggtgt aagagcttgg gctcctgtgc 1620
cctgtggcct gggctatgtg atcttgata agttccttaa cttctctgtg cctctgggtc 1680
ctcctctgat cacagagaag taggcatata ggctgatgcc tgtgaagtgc taggcacaag 1740
gcccagctca cgaggtacaa tggatcatcat cacagtctct ccaggaagga agcctgggtc 1800
cagcaaagca ggaattaaaa atcctgaagt ggccggggggc agtggctcat gcctgtaatc 1860
ccagcacttt gggaggctga ggtgggcagg tcacgaggtc aggagtctga gaccagcctg 1920
gccaacatag tgaaacccca tctctactaa aaatacaaaa attactggg caaagctggg 1980
cgtggtggct cagcctgtga atcccagcac tttgggaggc caaggtgggt ggatcacgag 2040
gtcaggagat cgagaccatc ctggctaaca cagtgaacc ccgtctctac taaaaacaca 2100
aatatttagc cgggcgtcgt ggcaggcgcc tgtagtccca gctactcggg aggttgaggc 2160
aggagaatgg cgtgaaccgg ggaggcggag cttgcagtga gccgagattg caccactgca 2220
ctccagcctg ggcaacagag cgagactcca tctcaaaaaa aaaaaaaaaa aattactggg 2280
cgtggtggca cagcctgtga gtcccagtta ctcaggaggc tgaggtagga gaatcacttg 2340
aacctgggag gcagaggttg cagtgaagca acattgcgcc accgcactcc agcctgggca 2400
tcagagttag actctgtctc aaaaaaaaaa aaaaaaattc tgaagcaaga gcatttgggg 2460
cagcaccagt ggcaccctgg tcctgaagca gaggttcccc aggtttacct gctgggtcct 2520

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agtgcctgcc | ccattatctt | ggggatgtca | ttcctgcctg | aaataatact | ctaccctaca | 2580 |
| cacaatatct | catataattc | tcagactctc | ggaaggtggt | actgttgtct | ccactttaca | 2640 |
| gatgagggaa | ttgaggccca | gagaggagaa | gggctggact | gctgaagtgg | accctatggt | 2700 |
| gtgccacca | gatacccctt | tactttccca | gtggctagga | gtgttgccctg | ctgatgggtc | 2760 |
| ttgactgagg | ctctctctag | gaattgccct | aggcagaaga | gaactgcctc | tgccaagctc | 2820 |
| acatcccctc | accagggaca | gcctgtgact | agtaactgat | taatgcctgg | tacaaagacc | 2880 |
| tggcctgttg | gtctcaattt | cagaaaactg | tgggtgggtca | tcccagttca | agcagtcctt | 2940 |
| gtgggatggg | ctgcagtttc | tgtgacattt | ctcctgcca | gtccttcttc | ccttgccccc | 3000 |
| aacctctcag | taaatccccg | tacataaatc | tccagctgag | tctgtttcca | ggagcccaat | 3060 |
| ctggatatgg | gtaggcagtg | aattaaagaa | gtgaatagta | agagcaaacc | caaggcaggt | 3120 |
| aggactgtga | ggaagggcta | ctcgcacatc | tcttgaggca | cagcctgaga | caggaggcgt | 3180 |
| taactacttt | tacctatgtc | ctggttctct | ctgttctaac | ccagcagacc | tagccacagc | 3240 |
| tcaggcacac | ctgctacgta | tgaagctgaa | cctcagcacc | gaaccacacc | cgtaggcact | 3300 |
| gaggacaatg | cagctgccgc | catcccctca | ggaatgggga | atctgaaacc | acatacagtg | 3360 |
| aaaaaacctg | acctggagat | ccagaggggg | ttgctgtggg | ggttatggaa | tctttcctcg | 3420 |
| agattaaatg | agagggaaaag | gtggaaagca | gaccccgcta | gtgggagtcg | ggtaggagga | 3480 |
| gcactgggaa | aatcaaacca | cgggcctcaa | ccccaaactc | gagctcagaa | tgctgtttacc | 3540 |
| atggcaactg | tgaggtcctc | ccagggtcct | actctgcatg | aggggtgggac | cagttcacag | 3600 |
| atgaggaat | tgaggcccag | cgagagtccc | tttcttagtc | aaccagaagt | tcagtcagga | 3660 |
| agccaggcag | gagctctgtc | tctgtctctc | tccatgtctc | tggggcccag | ttccctcccc | 3720 |
| actaccacct | ccacatactc | acagagaatc | agggcaatac | tcaggctggg | gcaggcgccg | 3780 |
| accctgggcc | aggaagtggg | taagggtcaaa | aggggtcaatg | tggcggtatg | gtggggcacc | 3840 |
| ccgtgtcagc | agttcccaca | gcagcacacc | aaatgaccac | tgtggaaagg | gggaggtgag | 3900 |
| gggactcaac | tcaccccaaa | tttgggggca | ggtgggtccc | ccaggggctt | ctacctccca | 3960 |
| gagtccttca | gctggaaatg | gaagacccta | ccctccactg | agagctcatt | cctcaatata | 4020 |
| tcacctgtgt | ctttcctctg | tctcctccca | ctacctcatc | ctaccagag | ttggggctgg | 4080 |
| gcaggccctg | gattatctgt | gaggagccag | tgagttccca | gcctcctcta | gccctggcag | 4140 |
| gtgtcagatt | ccatcttaca | tctgcccaag | aggtgagcag | atgggctgtg | ggggtcattc | 4200 |
| accctgggga | ctccctgggc | tcagatcatt | cagagctgaa | tgggtgaggc | ccagtgttct | 4260 |
| tgggtgccaa | agccatgtgg | actgtagggc | aggtggggcc | tcaccacatc | agacttggtg | 4320 |
| gtaaatctat | aggtctgcag | gctctccagc | gccatccact | tcacaggtag | gcgagcgtgg | 4380 |
| cgatgctgtt | gaacactata | gtactccctg | tccaggatgt | cgcgggccaa | accaaagtca | 4440 |
| gccaccttga | ctgtgaatga | ctcgtccagc | cttaggggta | gggagaggat | cacacttagg | 4500 |
| actggccctt | accaggccct | gaacccacct | gttctaggcc | cttacagaat | tttttttttt | 4560 |
| tttgagacgg | agtctcgctc | tgtcaccag | gctggagtgc | agtggcgcca | tctccgctca | 4620 |
| ctgcaagctc | tgcctcctgg | ggtcacgcca | ttctcccggc | tcagcctcct | gagtagctgg | 4680 |
| gactacaggg | gcccggccacc | acgcctggct | aatctttttg | tatttttagt | agagacgggg | 4740 |
| tttcaccgtg | ttagccagga | tgggtctcgat | ctcctgacct | catgatccgc | cttctctcagc | 4800 |
| ctcccaaagt | gctgggatta | cagacgtgag | ccaccgcgcc | tggccaaatt | tcaaagccac | 4860 |
| agtgtccagt | ccaagtctgc | actgggcaga | caaaaaaagt | aagggtgcaga | gaggggagga | 4920 |
| caaggctgga | gtggggccctt | ccctgaggcg | gccttgagca | ccgcacaccc | tcatgccctg | 4980 |
| tcctttttgct | tcaccccagc | tactctggac | tctcacatgc | agttccgcgc | agccagggtcc | 5040 |
| ctgtgcacaa | acttctgctc | tgccagggtac | tccatgccgc | gggctacctg | caggccaaag | 5100 |
| ctgatgaggt | ccttcacggt | gggggt | | | | 5125 |

<210> 12131

<211> 107

<212> DNA

<213> Homo sapiens

<400> 12131

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tcccagcact | ttgggaggcc | gaggcaggtg | gatcatgagg | tcaggagatc | gaggccatcc | 60 |
| tggccaacat | ggtgaaaccc | cgtctctact | aaaatacaaa | aaaaaaa | | 107 |

<210> 12132

<211> 131

<212> DNA

<213> Homo sapiens

<400> 12132

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-----|
| tattttatttt | gagatggagt | ctcgcctctgt | cgcccaggct | ggagtgcagt | ggctcgaatct | 60 |
| cggtcactg | caacctccgc | ctcctgggtt | cacgccattc | tcctgcctca | gcctccccgag | 120 |
| tagctgggac | t | | | | | 131 |

<210> 12133

<211> 8432

<212> DNA

<213> Homo sapiens

<400> 12133

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| aaaacctggg | cacaaaattg | ggttgactgt | gaatcattgt | gatgcctgat | caactctcctg | 60 |
| agacacccac | catcattggt | actgggttgcc | tgctccttgac | accggaggcc | actttgtgta | 120 |
| cttagcagtt | agaaagggtga | tgtgtgagggc | ccggcagctg | ttgggtgttac | agctattgtg | 180 |
| tgggaaacaa | aagccattct | gttctgttcc | ccagcctgcc | tttgtatcac | ggatagagga | 240 |
| gctgtttcat | aaatgaggta | taattcttta | ctggagaatt | tcattactgc | ccatgtttca | 300 |
| atggttagctt | acacttccaa | cagcagaggg | gaatgtctga | acatatctcc | ttttgaaaag | 360 |
| aatcttggct | tctgacctct | gtcaagatgc | ttgcatttta | aatctgttaa | ctagacctgc | 420 |
| gattagatgc | catcattaca | acacatatgc | ttcccacctt | ccttgctcta | gaccacccaa | 480 |
| cctaaggctg | gctagagtgt | atttgctgtc | agcctgcctg | tcttggaat | taagcagagt | 540 |
| acagtacaca | ctggcaccga | ggtgaaccag | taggaactag | atttctcgca | caattcctca | 600 |
| tggatctgtg | ctaggaaatt | ctcatagagc | aaatcagaac | tgacgtttat | ttgaagaaca | 660 |
| tgcacttttt | cacccaaatg | gtatatattt | tattttcatt | tagaaactat | atcaatctag | 720 |
| gaagttttca | gtagcatata | aaaaacaaac | tggcctaaac | aatcaaggaa | gtgcagtggg | 780 |
| ctgtgtgggt | cttcccagcc | ttcatccctc | cctgggctgt | gtcatttgct | gtgtgatttt | 840 |
| gaggttcctc | cttctaaagg | tgagtatat | tccttaactc | atggatgtta | ggctcagcta | 900 |
| catgacttgc | tttggccaga | ttttaaaagt | attcctattt | tcacttacct | ttcacttttc | 960 |
| tgccattgcc | gtgagaagaa | catgctctgg | ctctccttga | tcaaataaga | gaaatgtgag | 1020 |
| gcagggtttg | aatctgcaaa | ttggagccag | accacactga | gtccaacctc | gacagccta | 1080 |
| cttccagctg | acctagaatt | gcataagcca | gaataagtga | cagttgtttt | aagccaatgc | 1140 |
| atttttgaagt | ggtttcacag | cctatgtgtg | gcaatatctg | actgatattg | attgtctata | 1200 |
| taactgaaga | gtccaaagggt | agtatgggtt | tcgggtaggg | tttgaaaaga | attcctgttc | 1260 |
| tattttctgtg | tgattctctt | ggggcttcaa | cctgggatgg | tttccctctt | ggcatgatga | 1320 |
| ccatagccat | ttcagggtttc | acgtttacac | cacgtgccat | ctagaaaaca | agaaggcttc | 1380 |
| tcttcttcaa | ctatcatgca | aaagtcctgg | gcttcactct | gatgaggtca | acttaggtca | 1440 |
| catgtgtatc | ctgacccagt | cactgaggaa | agagagtggg | agtatgccac | gtgggtttacg | 1500 |
| tgaatcagag | tcctctcttga | aaatgggagt | gagtcacaatc | tcttccgaaa | tctgtgttgt | 1560 |
| gccaaattaa | agggtgggagt | tgtagggtgg | aacagatgtt | gagaggtaca | agcaatgtta | 1620 |
| attatggagt | ctgaatctcc | cacttttgtt | ttaaatttct | atcaatatat | tggttggctc | 1680 |
| aagccatttt | ccttccctcca | tgttgctagg | ctatctagag | acagagaaat | gggattttaag | 1740 |
| ctctagatct | gagatgttac | ctttaaatgg | caaagcgcac | ggccacaccc | ataccctac | 1800 |
| agtactggaa | agtgggtggg | aacccaaata | agactttacc | attattctgt | cagacttcca | 1860 |
| actcctggta | tcccagggtt | ttaagaaaat | ccaaagcagg | tttgacctat | cagaatgcgg | 1920 |
| agattttctga | tgtagaggat | gaagttaatg | ctgatgtaat | taacagcatg | ggatgaggtg | 1980 |
| ataagaatat | ctttccactg | acttctggtc | accattgttt | ccaatgagaa | gtcagctgta | 2040 |
| atctttgtca | ctgtccagac | acatagtaag | cacccaaaaa | tgtgtgttga | atcaatggat | 2100 |
| taaaaataga | accaagatct | tttggcacat | atcccaatgt | tcttccaaga | ctactctatc | 2160 |
| acttctttgt | aaaactttac | tttgcacatt | taatgtaccc | cttgacgctt | ctgcagggaa | 2220 |
| gtaaatgaaa | tcaatgacta | attcaggtaa | tttttgtaaa | catggacatt | aacatgatca | 2280 |
| ccagttactt | tctgtgcttc | tgagaggcct | cctgactctg | aagtatctga | aaggttgaac | 2340 |
| aaccctaata | attgaatgca | tttttgccat | tttaataatg | tttgccattt | tacaaatatt | 2400 |
| attgagcatc | tactgtccac | aagacaccgc | gttaagtaac | gtgagggaca | gagaattgaa | 2460 |
| catgagctaa | aacttgtctt | caagtaccca | actaatataa | tttgtcactc | aaggtttcag | 2520 |
| ggaaactgtg | gacagaagaa | aagacttggg | acctttcatg | gaactacaga | ttctcaggga | 2580 |
| gtagcttgcc | tgtctccttg | tagtggtact | tactagtctt | ctctaactcat | taaggatctc | 2640 |
| agttctgtat | gaaacatctg | tcagcattaa | gacaacatct | tgaaaaccag | cattttgatg | 2700 |
| tgacctagct | gggatgtcag | gcataatccac | atgttcttac | attaatttct | taaaaacatc | 2760 |
| ttcccatgca | ttttatgggtg | gctgtacatg | ggcactatta | ggtttgtttt | ggttggtaatg | 2820 |
| tcctgggttag | ataattctac | atagttgcaa | atttgagggg | atgaacactg | ctacgttttc | 2880 |
| tttgactcct | tctttgtctt | cgtatttttt | ttccagatga | gttatgcttt | aaaccataca | 2940 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| aacagaaaac | taacattgga | acctaaaatt | actgtcaatg | ccaagatcat | tgtgggttgg | 3000 |
| gcattccagt | ttggaatttc | cttcctagag | acattggtat | tttgggtgagt | tgtttcactc | 3060 |
| tattgattga | ttgggtttta | aataataaaa | attatcttcc | tacatctgaa | gagaacacca | 3120 |
| tcagagaaca | gacctgagat | tgtttgggtac | tccacacacc | ctgcctatgt | ggatggatga | 3180 |
| atcagtagaa | gaatattcta | gatcaggggt | tagcaaaacta | tagccctgag | gccaggcctg | 3240 |
| gcttgccaac | tgctttttgta | aataaaagctt | tattggaaca | cagccacact | catttatgtg | 3300 |
| ttgtctgtgg | ccattttttgt | gctacaatag | cagattagat | ggcagactcc | tctgctgagt | 3360 |
| agttggaaca | gagaccatat | ggccttcagt | gcctaaaata | tgtacagtct | cacccttccc | 3420 |
| agaaacagcc | tactgacccc | ttttctaaag | gaatgttttc | cttactggcc | cgatcacaaa | 3480 |
| aaccacctgc | agcattttgtt | aaagatgtag | attccaagat | cctgcaccca | acttacagaa | 3540 |
| tctggactcc | tggggaatgg | tctaggaatc | tgtatgtcaa | tagacactcc | acataatcag | 3600 |
| gcaggttttg | caatgagttt | tgacttcata | cattacaaat | acactttcag | aaatggcatg | 3660 |
| tgggccagga | cctttcttcc | agcccttgaa | ttttggatcc | cctggaacag | gtaaaaccct | 3720 |
| tcagggaata | tggaggcctg | tgcattctctt | ctgatgctgt | tttctcatcc | ccctcaaagc | 3780 |
| actaaacaag | gtttcctttc | agagcccat | tttctgatgg | gtgatgctca | gggattttcca | 3840 |
| gcattccccag | tctctctctc | catgtgctca | cttgagcacc | tctttaatag | aaaacaccct | 3900 |
| ggattagggg | ctgagagctc | gggatcatgg | cctggcatca | tcagcaccta | acatggagcc | 3960 |
| ctcagtgtat | tgtctagctt | ctctcaaact | cgctatcttc | atttatTTTT | taaaaagttt | 4020 |
| catagatgtt | ttaaaaccct | gactttggga | accacagaa | cctgaattaa | gagtccagtt | 4080 |
| tttccaaatc | ttttgctcag | gatcacatga | aaaactttag | ctaccattca | aaactacagg | 4140 |
| tgctgagagg | taagcaggag | atgggaaaa | gcagcttacc | atcactcttc | tgggaagccag | 4200 |
| cagagtctct | agctcaggac | aggtggggcc | ttgtgaagg | ctgggtaagc | aaatggatgg | 4260 |
| aggaaatgac | cctcaaaagg | tgtatgtgcc | tgggttaacgt | ggagacgagc | taatcccaag | 4320 |
| tgggtatttt | gctcatttaa | catcacatta | accagataaa | aaaagaattg | attttttcac | 4380 |
| tttctagcca | gtttgttcag | ttctccagaa | catactctta | ggtaactaga | aataaattat | 4440 |
| gagtcattac | tgaagttagt | aacagagttc | atgtgctttg | aataatgtgg | tcagtctgca | 4500 |
| gcaatatttc | actgcaagca | tgaatgatg | agaagcacct | aggaaatattc | cattcccagg | 4560 |
| gtatgccacg | ttatagtctg | agtgtctttac | ttgttctgat | gggtctcttc | ctcgaaaact | 4620 |
| tttgaacagc | aagttttatg | caaccatttt | cgaatgatga | attattaagg | tggagctgtg | 4680 |
| aaattatagc | agtttaaga | ttataaacag | gtcttaaatc | ttaattcagc | tataacttta | 4740 |
| gtcataatgt | tttatttaaa | tgattacatt | gagacatata | caagtaattt | tctttttgtg | 4800 |
| gagtcaactt | agatctaata | aagacaagta | taaattttga | tgttaagtatt | gggtcgatta | 4860 |
| aattttccaa | tcaaacagag | cttttttaaag | cattctaaaa | tactcataat | tctctatcat | 4920 |
| cattacacag | attacgtaca | ctaaaaatag | actggtatca | gtttacagat | ctctaattcct | 4980 |
| taagagagga | aatagttttc | tcattatttt | ctctaattat | tttaagtcag | caatcaccat | 5040 |
| ggtaacctac | tgcgtatttt | actttcccag | tttaactgcc | atttgaactt | aattttatac | 5100 |
| atgattttgag | ctgaaatgaa | gaaatacagt | tttcacccaa | cactgaccac | caatgaggat | 5160 |
| tgaatctaca | ttttggaagc | aaaattttagg | agaatcagcc | tccttgtagt | cttttttggg | 5220 |
| ttgtttttgt | ttttgttttg | agacagagtc | tcactctgtt | gccaggctg | gagtgtatgg | 5280 |
| agcaatctcg | gttcactaca | acctccgcct | ccccccaggt | tcaagcgatt | ctcttgccctc | 5340 |
| agcctcccaa | gtagctggta | ctacaggtgc | aagccaccat | gcccgaactca | tttttgattt | 5400 |
| ttcagtagag | attgggtttc | accatgtttg | ccgggctggg | ctcgaactcc | tggcctcaag | 5460 |
| tgacctgccc | gccttggcct | cccaaagtgc | taggattacg | ggcagggggc | acagcgccct | 5520 |
| gctgcctcct | tgtagtcttg | agctgcattg | tcagactcag | caggggcatc | atcattcctg | 5580 |
| gaaaatccac | tcgaggctca | ggacagtaac | ctctttctcc | agaaaatctg | gtaattctgt | 5640 |
| catctgacaa | caaaacaaac | acaactttgt | tcttgtatta | tttccatgca | agaaattata | 5700 |
| aaacacattt | ggtctctctt | tcaaaggaca | ccaaaagcag | tttgtgtaaa | ttcctatcct | 5760 |
| ttcttcccca | agtgtgagg | tgctactggg | agagctgaag | tgctttggcc | aaactcactc | 5820 |
| cctgataattc | cctaggatgt | aagctccatg | tgatgaggca | atactgtggg | ggtgttctga | 5880 |
| ctttttatatt | ttttaagtat | gctattttat | ctgctagctg | tgtgcagtta | atctgcacag | 5940 |
| acacatctcc | ttgtctgtgg | ttgtcaggcc | tgagtctctg | gtcttgcctt | tcctaggagg | 6000 |
| agcctgttgg | gccctccagc | accgggagac | atgcatggca | ggcattttcc | tgggggtgtcc | 6060 |
| caggatccca | gtcttttact | tcccctgctg | tcctccgtgc | cctcctgctc | ctggccctgg | 6120 |
| tgatccccag | cagagccgag | gagccagtgg | ccctgctctc | agaggcttct | acagtctccc | 6180 |
| tcagccctgc | gggagacctc | caggggtgga | gatgggcagg | ggcgtagcgt | catccagggt | 6240 |
| gggggtgggct | cagctaattg | gttccctccc | ccctgtctg | gtgcacttgg | cctctgaggg | 6300 |
| gagccagga | ggaaaggacc | cagccttctt | tcctgtcacc | tgcccagcca | gcgcaggagc | 6360 |
| atgcgtgttt | gtggcaagga | tcaggagctg | ggcagggcaa | ggctagggct | gtgggggtgg | 6420 |
| gctcttgcac | tgcagggcat | tgaggaagaa | aacaccagct | tgtactatgg | ggtagagggc | 6480 |
| cgtgaattgg | aggggaaaga | acagatctta | agactgtgtg | ttcttcataa | tgcccaagac | 6540 |
| atttaagtga | tagattttgga | ttatttttaa | atgactgttc | ttgtgattgg | tgggttgtgt | 6600 |

| | | | | | | |
|------------|------------|-------------|-------------|-------------|-------------|------|
| tcatttggcc | accccgttct | ttgggactga | aagttcctgg | ctcggacact | atgatgtcac | 6660 |
| atgtgcattt | tccttctcgg | tgcttccatt | aataagacta | tttaaaacct | ccaaccactg | 6720 |
| gagaaagcag | aaagagcttg | gcctcagccg | ctagcccacc | tctgctgcca | agcagtgttg | 6780 |
| cagccctgag | ggaggaactg | tcctcatctg | tgctgaagga | gagtcaccagc | aggggcccc | 6840 |
| aggctctgcc | agcctgaagg | cgccaccacg | gtagaaactc | cacaaacctt | ctcaggggtga | 6900 |
| gatctgtaaa | gtgaactcac | tataaagtga | actcccacca | agtctagcat | tgctgaactc | 6960 |
| ctcaactgca | gtgctttgac | tctttcaggt | ttccacaaag | atattccaga | atcctttttt | 7020 |
| tttaattata | taaagtctat | agcaaaatag | aaaaaaaaaa | gaagaagaag | aagaagagaa | 7080 |
| ggagccggaa | ccaggtgtat | gcacctctct | tctgtttctg | catcctttca | ctcctgggtg | 7140 |
| ggcgctgga | ccagcagcat | tgatatcacc | tgtgagttcg | ttagaaatgc | acaacctcag | 7200 |
| gcctgcccc | agtgtcccaa | acaggttttt | ttccagaatt | atgcagaaca | gcattcttgac | 7260 |
| tgctctctgg | gcctgcgttc | atagagctga | ggcagttgct | gtccccttct | gtttcagcac | 7320 |
| gagtctctat | gcttcagttg | tttatagtat | ttactcctaa | ttatgggaaa | gttccttttt | 7380 |
| aatccattat | ttttaactct | ttcctaattt | aatcccgacg | taaagaatct | tttgaagagc | 7440 |
| ctgtaatggc | actagaaaaa | tgcttactgg | agtcatggat | gacagtgact | gaaagcagcc | 7500 |
| cagctgggtg | ccccgcgacc | ctccgtgtga | ctagagagaa | acactgattc | ataggaagca | 7560 |
| ccggtgggca | ctggaaagcc | cgggttcccc | ttgtcttcca | cttcaccac | tcagaagagt | 7620 |
| tttctcgaaa | actgaccaa | tcattccagca | aaagatgcag | cctcagactt | tcagcctaga | 7680 |
| cactgatccc | ctcatctggt | tgaatgtgtc | gaggttaacta | agaatagctt | ggaccaagca | 7740 |
| gggcatgttt | ctaaagctgc | aattgtggca | atgaccacaa | ctcctgttat | cgggcccgtgc | 7800 |
| agttccgcac | aatatccggc | acagctgtgg | gctctggcag | cagccagcct | agcgtgtggc | 7860 |
| gcttaattag | gctttttatc | tttacatttg | tctgaggaca | tctgaaacct | tcagtgtggc | 7920 |
| ctgtcactaa | ttaggtgact | aattaaatag | tcagtgtctc | cttgctgata | tcagagctca | 7980 |
| accgcaatgg | acaggtttgt | gattgtgact | ccccgtcctg | tcgggtctctg | cacgtgtgcg | 8040 |
| cctcgcaatt | gcctgtttca | ttgcgctgtg | caaaaacggc | atgggagcga | ggcccagggc | 8100 |
| atgtgcaggg | ccgtcctccg | atgtgcccaa | gcagcaggca | gcacggacat | ccacaggggg | 8160 |
| gcatatggga | gatggacatc | cacagggcat | acgggacatc | agttctgggtg | cagaggctgg | 8220 |
| tctgggtggc | agagcagagg | ggacggtgga | aggagcttta | cctgccaggc | tcagagtctc | 8280 |
| agtctcccca | ggcagcaaga | gttgacattc | tgccaccaga | gaataaggat | ccagaactca | 8340 |
| ccctgggtgc | actaatcaca | atgggggttc | ctattcgact | ccaatattta | aatgtaatta | 8400 |
| atgttaaata | aaagcacctt | catttactga | aa | | | 8432 |

<210> 12134
 <211> 8432
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|------|
| <400> 12134 | | | | | | |
| aaaacctggg | cacaaaattg | ggttgactgt | gaatcattgt | gatgcctgat | cactctcctg | 60 |
| agacaccac | catcattggt | actggttgcc | tgctcttgac | accggaggcc | actttgtgta | 120 |
| cttagcagtt | agaaagggtga | tgtgtgaggg | ccggcagctg | ttggtgttac | agctattgtg | 180 |
| tgggaacaa | aagccattct | gttctgttcc | ccagcctgcc | tttgtatcac | ggatagagga | 240 |
| gctgtttcat | aaatgaggta | taattcttta | ctggagaatt | tcattactgc | ccatgtttca | 300 |
| atgttagctt | acacttccaa | cagcagaggg | gaatgtctga | acatatctcc | ttttgaaaag | 360 |
| aatcttggct | tctgacctct | gtcaagatgc | ttgcatttta | aatctgttaa | ctagacctgc | 420 |
| gattagatgc | catcattaca | acacatatgc | ttcccacctt | ccttgctcta | gaccacccaa | 480 |
| cctaaggctg | gctagagtgt | atttgctgtc | agcctgcctg | tcttggaat | taagcagagt | 540 |
| acagtacaca | ctggcaccca | ggtgaaccag | taggaactag | atttctcgca | caattcctca | 600 |
| tggatctgtg | ctaggaaatt | ctcatagagc | aatcagaac | tgacgtttat | ttgaagaaca | 660 |
| tgcacttttt | cacccaaatg | gtatatttat | tatttttcatt | tagaaactat | atcaatctag | 720 |
| gaagttttca | gtagcatata | aaaaacaaac | tggcctaaac | aatcaaggaa | gtgcagtggg | 780 |
| ctgtgtgggt | cttcccagcc | ttcatccctc | cctgggctgt | gtcatttgct | gtgtgatttt | 840 |
| gaggttcctc | cttctaaagg | tgagtatat | tccctaactc | atggatgtta | ggctcagcta | 900 |
| catgacttgc | tttggccaga | ttttaaaagt | attcctattt | tcacttacct | ttcacttttc | 960 |
| tgccattggc | gtgagaagaa | catgctctgg | ctctcttgca | tcaaataaga | gaaatgtgag | 1020 |
| gcaggtttgg | aatctgcaaa | ttggagccag | accacactga | gtccaacct | gatcagccta | 1080 |
| cttccagctg | acctagaatt | gcatgagcca | gaataagtga | cagttgtttt | aagccaatgc | 1140 |
| attttgaagt | ggtttcacag | ccctatttgt | gcaatatctg | actgatatgt | attgtctata | 1200 |
| taactgaaga | gtccaaaggt | agtatgggtt | tcgggtaggg | tttgaaaaga | attcctgttc | 1260 |
| tatttctgtg | tgattctctt | ggggcttcaa | cctgggatgg | tttccctctt | ggcatgatga | 1320 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| cctagagccat | ttcaggtttc | acgttttacac | cacgtgccat | ctagaaaaca | agaaggettcc | 1380 |
| tcttcttcaa | ctatcatgca | aaagtcctgg | gcttcactct | gatgaggtca | acttaggtca | 1440 |
| catgtgtatc | ctgaccagct | cactgaggaa | agagagtggg | agtatgccac | gtgggtttacg | 1500 |
| tgaatcagag | tccctcttga | aaatgggagt | gagtccaatc | tcttccgaaa | tctgtgttgt | 1560 |
| gccaaattaa | aggtgggagt | tgtagggttg | aacagatggt | gagaggtaca | agcaatgtta | 1620 |
| attatggagt | ctgaatctcc | cacttttgtt | ttaaatttct | atcaatatat | tgtttggctc | 1680 |
| aagccatttt | ccttctctca | tgttgctagg | ctatctagag | acagagaaat | gggattttaag | 1740 |
| ctctagatct | gagatgttac | ctttaaatgg | caaagcgcac | ggccacaccc | atacccttac | 1800 |
| agtactggaa | agtgggtggg | aacccaaaata | agactttacc | attattctgt | cagacttcca | 1860 |
| actcctggta | ttccaggggt | ttaagaaaat | ccaaagcagg | tttgacctat | cagaatgagg | 1920 |
| agatttctga | tgtagaggat | gaagttaatg | ctgatgtaat | taacagcatg | ggatgaggtg | 1980 |
| ataagaatat | ctttccactg | acttctgtgt | accattgttt | ccaatgagaa | gtcagctgta | 2040 |
| atctttgtca | ctgtccagac | acatagtaag | caccaaataa | tgtgtgttga | atcaatggat | 2100 |
| taaaaataga | accaagatct | tttggcacat | atcccaatgt | tcttccaaga | ctactctatc | 2160 |
| acttctttgt | aaaactttac | tttgcacatt | taatgtaccc | cttgcagctt | ctgcagggaa | 2220 |
| gtaaatgaaa | tcaatgacta | attcaggtaa | tttttgtaaa | catggacatt | aacatgatca | 2280 |
| ccagttactt | tctgtgcttc | tgagaggcct | cctgactctg | aagtatctga | aagggtgaac | 2340 |
| aaccctaata | attgaatgca | tttttgccat | ttaataaatg | tttgccattt | tacaaatatt | 2400 |
| attgagcatc | tactgtccac | aagacaccgc | gttaagtaac | gtgagggaca | gagaattgaa | 2460 |
| catgagctaa | aacttgtctt | caagtaccca | actaatataa | tttgtcactc | aaggtttcag | 2520 |
| ggaaactgtg | gacagaagaa | aagacttggg | acctttcatg | gaactacaga | ttctcaggga | 2580 |
| gtagcttgcc | tgtctccttg | tagtgttact | tactagttgt | ctctaatacat | taaggatctc | 2640 |
| agttctgtat | gaaacatctg | tcagcattaa | gacaacatct | tgaaaaccag | catttttgatg | 2700 |
| tgacctagct | gggatgtcag | gcataatccac | atgttcttac | attaatttct | taaaaacatc | 2760 |
| ttcccatgca | ttttatgggtg | gctgtacatg | ggcactatta | ggtttggttt | gggtggaatg | 2820 |
| tcctgggttag | ataattctac | atagttgcaa | atttgagggt | atgaacactg | ctacgttttc | 2880 |
| tttgactcct | tctttgtctt | cgtatttttt | ttccagatga | gttatgcttt | aaaccataca | 2940 |
| aacagaaaaac | taacattgga | acctaaaaat | actgtcaatg | ccaagatcat | tgtgggttgg | 3000 |
| gcattccagt | ttggaatttc | cttccatag | acattggat | tttgggtgag | tgtttcactc | 3060 |
| tattgattga | ttgggttttt | aataataaaa | attatcttcc | tacatctgaa | gagaacacca | 3120 |
| tcagagaaca | gacctgagat | tgtttgggtac | tccacacacc | ctgcctatgt | ggatggatga | 3180 |
| atcagtagaa | gaatattcta | gatcaggggt | tagcaaacta | tagccctgag | gccaggcctg | 3240 |
| gcttgccaac | tgcttttgta | aataaagctt | tatttgaaca | cagccacact | catttatgtg | 3300 |
| ttgtctgtgg | ccatttttgt | gctacaatag | cagattagat | ggcagactcc | tctgtctgag | 3360 |
| agttggaaca | gagaccatat | ggccttcagt | gcctaaaata | tgtacagtct | cacccttccc | 3420 |
| agaaacagcc | tactgacccc | ttttctaaag | gaatgttttc | cttactggcc | cgatcacaaa | 3480 |
| aaccacctgc | agcatttgtt | aaagatgtag | attccaagat | cctgcaccca | acttacagaa | 3540 |
| tctggactcc | tggggaatgg | tctaggaatc | tgtatgtcaa | tagacactcc | acataatcag | 3600 |
| gcaggtttgg | caatgagttt | tgacttcata | cattacaaat | acactttcag | aaatggcatg | 3660 |
| tgggccagga | cctttcttcc | agcccttgaa | ttttggatcc | cctggaacag | gtaaaaccct | 3720 |
| tcagggaata | tggaggcctg | tgcactctct | ctgatgctgt | tttctcatcc | ccctcaaagc | 3780 |
| actaaacaag | gtttcctttc | agagcccatt | tttctgatgg | gtgatgtcga | gggattttcca | 3840 |
| gcatccccag | tctctctctc | catgtgctca | cttgagcacc | tctttaatag | aaaacaccct | 3900 |
| ggattaggg | ctgagagctc | gggatcatgg | cctggcatca | tcagcaccta | acatggagcc | 3960 |
| ctcagtgtat | tgtctagctt | ctctcaaact | cgctatcttc | atttattttt | taaaaagttt | 4020 |
| catagatgtt | ttaaaaccct | gactttggga | accacagaag | cctgaattaa | gagtcaggtt | 4080 |
| tttccaaatc | ttttgctcag | gatcacatga | aaaactttag | ctaccattca | aaactacagg | 4140 |
| tgctgagagg | taagcaggag | atgggaaaat | gcagcctacc | atcactcttc | tgggaagccag | 4200 |
| cagagttctt | agctcaggac | aggtggggcc | ttgtgaagg | ctgggtaagc | aaatggatgg | 4260 |
| aggaaatgac | cctcaaaagg | tgtatgtgcc | tggttaacgt | ggagacgagc | taatcccaag | 4320 |
| tggttatatt | gctcatttaa | catcacatta | accagataaa | aaaagaattg | attttttcac | 4380 |
| tttctagcca | gtttgttcag | ttctccagaa | catactctta | ggtaactaga | aataaattat | 4440 |
| gagtcattac | tgaagttagt | aacagagttc | atgtgctttg | aataatgtgg | tcagtctgca | 4500 |
| gcaatatttc | actgcaagca | tgaatgatg | agaagcacct | aggaatattc | cattcccagg | 4560 |
| gtatgccacg | ttatagtctg | agtgccttat | ttgttctgat | gggtctcttc | ctcgaaaact | 4620 |
| tttgaacagc | aagttttatg | caaccttttt | cgaatgatga | attattaagg | tggagctgtg | 4680 |
| aaattatagc | agtttaagaag | ttataaacag | gtcttaaatc | ttaattcagc | tatatactta | 4740 |
| gtcataatgt | tttattttaaa | tgattacatt | gagacatata | caagtaattt | tctttttgtg | 4800 |
| gagtcacttt | agatctaata | aagacaagta | taaattttga | tgtaagtatt | gggtcgatta | 4860 |
| aatttcccaa | tcaaacagag | cttttttaaag | cattctaaaa | tactcataat | tctctatcat | 4920 |
| cattacacag | attacgtaca | ctaaaaatag | actggtatca | gtttacagat | ctctaactct | 4980 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| taagagagga | aatagttttc | tcattatttt | ctctaattat | tttaagtcag | caatcaccat | 5040 |
| ggtaacctac | tgcgtatttt | actttccag | tttaactgcc | atttgaactt | aatttttatac | 5100 |
| atgatttgag | ctgaaatgaa | gaaatacagt | tttcacccaa | cactgaccac | caatgaggat | 5160 |
| tgaatctaca | tttttggaagc | aaaatttagg | agaatcagcc | tccttgtagt | cttttttggt | 5220 |
| ttgtttttgt | ttttgttttg | agacagagtc | tcactctgtt | gccaggctg | gagtgtatgg | 5280 |
| agcaatctcg | gttcaactaca | acctccgct | ccccccaggt | tcaagcgatt | ctcttgccctc | 5340 |
| agcctcccaa | gtagctggta | ctacaggtgc | aagccaccat | gcccgaactca | tttttgatt | 5400 |
| ttcagtagag | attgggtttc | accatgttgg | ccgggctggg | ctcgaactcc | tggcctcaag | 5460 |
| tgacctgccc | gccttggcct | cccaaagtgc | taggattacg | ggcaggggcc | acagcgccct | 5520 |
| gctgctcct | tgtagtcttg | agctgcattg | tcagactcag | caggggcatc | atcattcctg | 5580 |
| gaaaatccac | tcgaggctca | ggacagtaac | ctctttctcc | agaaaatctg | gtaattctgt | 5640 |
| catctgacaa | caaaacaac | acaactttgt | tcttgattata | tttccatgca | agaaattata | 5700 |
| aaacacattt | ggtctcctct | tcaaaggaca | ccaaaagcag | tttggtgtaa | ttcctatcct | 5760 |
| ttcttcccca | agtgtcgagg | tgctactggg | agagctgaag | tgctttgccc | aaactcactc | 5820 |
| cctgatattc | cctaggatgt | aagctccatg | tgatgaggca | atactgtggt | ggtgttctga | 5880 |
| ctttttat | ttttaagtat | gctattttat | ctgctagctg | tgtgcagtta | atctgcacag | 5940 |
| acacatctcc | ttgtctgtgg | ttgtcaggcc | tgagtcctgc | gtcttgcct | tcctaggagg | 6000 |
| agcctgttgg | gccctccagc | accgggagac | atgcatggca | ggcattttcc | tggggtgtcc | 6060 |
| caggatccca | gtcttttact | tccctgctg | tcctccgtgc | cctcctgctc | ctggccctgg | 6120 |
| tgatccccag | cagagccgag | gagccagtgg | ccctgctctc | agaggcttct | acagtctccc | 6180 |
| tcagccctgc | gggagacctc | caggggtgga | gatgggcagg | ggcgtagcgt | catccagggt | 6240 |
| ggggtgggct | cagctaattg | gttccctccc | cccttgctctg | gtgcacttgg | cctctgaggg | 6300 |
| gagcccagga | ggaaaggacc | cagccttctt | tcctgtcacc | tgcccagcca | gcgcaggagc | 6360 |
| atgctgtttt | gtggcaagga | tcaggagctg | ggcagggcaa | ggctagggct | gtgggggtgg | 6420 |
| gctcttgc | tgcaaggcat | tgaggaagaa | aacaccagct | tgtactatgg | ggtagagggc | 6480 |
| cgtgaattgg | aggggaaaga | acagatctta | agactgtgtg | ttcttcataa | tgcccaagac | 6540 |
| atttaagtga | tagatttgga | ttatttttaa | atgactgttc | ttgtgattgg | tgggttgtgt | 6600 |
| tcatttggcc | accccgttct | ttgggactga | aagttcctgg | ctcggacact | atgatgtcac | 6660 |
| atgtgcattt | tccttctcgg | tgcttccatt | aataagacta | tttaaaacct | ccaaccactg | 6720 |
| gagaaagcag | aaagagcttg | gcctcagccg | ttagcccacc | tctgctgcca | agcagtgttg | 6780 |
| cagccctgag | ggaggaactg | tcctcatctg | tgctgaaggga | gagtcccagc | aggggcccc | 6840 |
| aggctctgcc | agcctgaagg | cgccaccacg | gtagaaactc | cacaaacct | ctcagggtga | 6900 |
| gatctgtaaa | gtgaactcac | tataaagtga | actcccacca | agtctagcat | tgctgaactc | 6960 |
| ctcaactgca | gtgctttgac | tccttcagg | ttccacaaag | atattccaga | atcctttttt | 7020 |
| tttaattata | taaagtctat | agcaaaatag | aaaaaaaaaa | gaagaagaag | aagaagagaa | 7080 |
| ggagccggaa | ccagggtgat | gcacctctct | tctgtttctg | catcctttca | ctcctggtgt | 7140 |
| ggcgcgtgga | ccagcagcat | tgatatacc | tgtgagttcg | ttagaaatgc | acaacctcag | 7200 |
| gccctgcccc | agtgtcccaa | acagggtttt | ttccagaatt | atgcagaaca | gcattcttgac | 7260 |
| tgtctcctgg | gcctgcgttc | atagagctga | ggcagttgct | gtcccttct | gtttcagcac | 7320 |
| gagtctctat | gcttcagtg | tttatagtat | ttactcctaa | ttatgggaaa | gttccttttt | 7380 |
| aatccattat | ttttaactct | ttcctaattt | aatcccgacg | ttaaagaatct | tttgaagagc | 7440 |
| ctgtaatggc | actagaaaaa | tgcttactgg | agtcattggat | gacagtgact | gaaagcagcc | 7500 |
| cagctgggtg | ccccgcgacc | ctcctgtgta | ctagagagaa | acactgattc | ataggaagca | 7560 |
| ccggtgggca | ctggaaagcc | cgggttcccc | ttgtcttcca | cttccaccac | tcagaagagt | 7620 |
| tttctcgaaa | actgacaaaa | tcattccagca | aaagatgcag | cctcagactt | tcagcctaga | 7680 |
| cactgatccc | ctcatctggt | tgaatgtgtc | gaggtaacta | agaatagctt | ggaccaagca | 7740 |
| gggcatgttt | ctaaagctgc | aattgtggca | atgaccacaa | ctcctgttat | cgggccgtgc | 7800 |
| agttccgcac | aatatccggc | acagctgtgg | gctctggcag | cagccagcct | agcgtggcg | 7860 |
| gcttaattag | gctttttatc | tttacatttg | tctgaggaca | tctgaaacct | tcagtgtggc | 7920 |
| ctgtcactaa | ttaggtgact | aattaaatag | tcagtgtctc | cttgctgac | tcagagctca | 7980 |
| accgcaatgg | acagggtttg | gattgtgact | ccccgtcctg | tcggtctctg | cacgtgtgcg | 8040 |
| cctcgcaatt | gccctgttca | ttgcgtgtg | caaaaacggc | atgggagcga | ggcccagggc | 8100 |
| atgtgcaggg | ccgtcctccg | atgtgcccc | gcagcaggca | gcacggacat | ccacaggggg | 8160 |
| gcatatggga | gatggacatc | cacagggcat | acgggacatc | agttctgggtg | cagaggctgg | 8220 |
| tctggtggcc | agagcagagg | ggacgggtgga | aggagcttta | cctgccaggc | tcagagtctc | 8280 |
| agtctcccca | ggcagcaaga | gttgacattc | tgccaccaga | gaataaggat | ccagaactca | 8340 |
| ccctggtgtc | actaatcaca | atggggtttc | ctattcgact | ccaatattta | aatgtaatta | 8400 |
| atgttaaata | aaagcacctt | catttactga | aa | | | 8432 |

<210> 12135

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|------|
| caaaattaaa | ctattttcttt | aatgaatata | ttgcttattt | taagttccaa | aggtgaagtc | 3420 |
| tttaagaata | aaacattacc | aactcctgct | tttatatgta | agcaaacttg | a | 3471 |

<210> 12136
 <211> 3470
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|------|
| <400> 12136 | | | | | | |
| gcttttctcat | ccggccgggt | tgctttcccc | tgcggtcgtc | cagactattg | ggcgctagcg | 60 |
| agacgaacta | ttggtacggg | gctagagagg | aaggcttttg | gattgccggg | gagcagcgag | 120 |
| cgaccgactt | ccgtttccag | ttaccaaggc | acgaggatcc | ggtgttccaa | cccaggggga | 180 |
| aaaatgcggc | ctttgactga | agaggagacc | cgtgtcatgt | ttgagaagat | agcgaaatag | 240 |
| taggagcgcg | cggggaggac | gcgggagtgt | gtgggtgtgg | tggccaaggg | tggagtgggg | 300 |
| gcgcggtgcc | ggagaccggg | tcgttcgggc | gcggtctcca | gtcctctttt | tgccctcagc | 360 |
| attggggaga | atcttcaact | gctgggtggc | cggcccgatg | gcacctactg | tttccgtctg | 420 |
| cacaacgacc | gggtgtacta | tgtgaggtga | ggcggggccg | ggcaggcagc | atggaccag | 480 |
| gggagagggg | tcctgggtcc | cacgagcctc | cttcatccgc | aaccttgctc | cccctttacc | 540 |
| cttttagtga | gaagattatg | aagctggccg | ccaatatattc | cggggacaag | ctgggtgtgc | 600 |
| tggggacctg | ctttggaaaa | ttcactaaaa | cccacaaggt | tcggttgac | gtcacagctc | 660 |
| tggattacct | tgcaccttat | gccaaaggtt | gtggggcggt | ttccaattct | gccacgggcg | 720 |
| atgaagtcaa | ggattaggca | gattgtccgg | cagcttctct | cccacagagt | ccctgacagt | 780 |
| gtgcttggag | gagtttcagc | acatggagat | gtgtagaggt | cttgcagctt | gagcatggtc | 840 |
| agggtctatg | gataggaatg | ctatgtggct | gcgtagggtt | agttttctcc | agcgaagtag | 900 |
| aagagcctag | ggagaccag | ctagagatca | gaaagcaa | aagtggcagc | aatgaagaca | 960 |
| ccggggtcca | gaaaaagagc | tgttaacctg | gccatggagg | atgatccttg | tagagttgag | 1020 |
| aaaataactt | tttctatttt | tttctttttc | tttcttgctc | tgttttttct | tttcatttct | 1080 |
| ctttctcttt | cttcttgaca | cagtttctct | ctgtcgccca | ggctagagtg | cagtgggtgc | 1140 |
| atctcactgc | agcctccact | ttccagtttc | cagtgtattct | tgtgcctcag | tagctgggat | 1200 |
| tacaggcatg | tgccaccaca | cctggctgat | ttttttgtgt | gttttttagta | gagacagtgt | 1260 |
| ttcactgtgt | tggccaggct | ggtctcgaac | tcctggcctc | aagtgatcca | cctgccttgg | 1320 |
| cctcccaaag | tgctgggatt | acaagcgtga | gccactgcac | cgggcaactt | cctgcatttc | 1380 |
| tggttcaggag | atagacagtt | tgaggaaaac | atgagtctct | ctgtttccct | taaaattatt | 1440 |
| tcagaaaatt | attcacagat | ccagcagcta | gcttgtctgc | atggatagaa | atagtaacgt | 1500 |
| ttttatgtct | cttggatttt | aattctctta | tagtataaa | tttggataaa | gcctggtgca | 1560 |
| gagcagtcct | tcctgtatgg | gaacatgtg | ttgaaatctg | gtctgggtcg | aatcactgaa | 1620 |
| aatacttctc | agtaccaggg | cgtgggtggg | tactccatgg | cagacatccc | tttgggtgag | 1680 |
| agagatggta | gctgttacag | aactcaagta | ctcttattca | agaagggtat | gtcttcaatc | 1740 |
| tgagtgcctg | agagaataaa | ttctcagcac | gttttgaatc | ccagaaagac | cagaactgta | 1800 |
| ttttttccgt | ctttgttatt | tccagccctc | aatatgggca | tattgaatga | cttcagttag | 1860 |
| ttagtgtctc | ttcttttgaa | tcccagggtt | ttgggggtgg | agccaaatct | acacaagact | 1920 |
| gcagaaaagt | agaccccatg | gcgattgtgg | tatttcatca | agcagacatt | ggggaatatg | 1980 |
| tgcggcatga | agagacgttg | acttaaaacg | aagccattcc | aaggacagac | ggctgtatgg | 2040 |
| aaaggccgag | ctttgtttcc | tgtgttttgt | tggactccac | catcatgttg | aattttgtca | 2100 |
| acactctggc | ctcttcaggg | acttcttatt | tactgtactc | tctatcactg | acaaatgcag | 2160 |
| gctggattct | tattatatac | agagatggct | caaaaatggg | gtttcagatc | tttgtgacga | 2220 |
| aatagaatac | tgtttcatat | ttgaatcaga | gggcttcttg | ttctgagaaa | taggttcaaa | 2280 |
| atcattggaa | ccaggaacaa | gaatagctta | ttgttatctg | tgataaacact | gttttctaaa | 2340 |
| cacaaggatt | ttctttttta | ttaatatgca | acatagacat | tgccataaca | gaataataaa | 2400 |
| ccacatgtgg | ggttttataa | atgaaatttg | gctaatagga | gcaattcagc | tatttttcta | 2460 |
| tacagtaatt | ggtgtgtggg | atagaagaaa | aacgggttca | aacccactt | ctgccacctc | 2520 |
| ccagctatat | ggccttgaat | gagtcattca | gctttaataa | ggttcatttt | cttctgttta | 2580 |
| aaaagacaca | aaacttgaaa | atcagctttg | gccatctacc | tgagaatttag | aaagtctgat | 2640 |
| ttttggaatt | agaaatcatg | attgtaggct | gggcacagtg | gctcgcgcct | gtaatcccag | 2700 |
| cactttggga | ggccaaggcg | gacggatcac | ttgaggttag | gagtttgaga | ccagcctggc | 2760 |
| caacatgggt | aaaccccatc | tctactaaaa | aaaaaaaata | aattaggtgt | ggtgacacat | 2820 |
| ggctgtgggt | ctagttactt | gggaggctga | ggcaggagaa | tggcttgaa | tggggaagca | 2880 |
| gagcttgacg | tgagccaaga | tggtgccatt | gcactccagc | ctgggctgta | cagagtgaga | 2940 |
| ctccatctga | ttgtaaagca | tctagtacag | tgtacagtgc | cttggaaatg | ataggtatgg | 3000 |
| aataaatggt | aattattttt | atattatata | tattatgtat | tcctgttatt | aagtgtagag | 3060 |

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|------|
| ttttatgagt | ataattttag | tttattacct | tctttttttac | aagctgtttt | ctcagtat | 3120 |
| ttcttggatg | ggatgacgct | aggctggaaa | gttttttttca | tcactatgat | tttataaaac | 3180 |
| aatttttttct | atgaaccttt | acttacttga | ctggatttga | ctaaaagcac | tgatcagagg | 3240 |
| ccacgacata | aaaattcagt | ccctttgtcc | ttccccgtgc | ctcccaaagt | tactttaaga | 3300 |
| tccttagaat | atttctttta | atattttata | gacaaaaaat | ttaaagacta | tctgtattgc | 3360 |
| aaaattaaac | tatttcttta | atgaatatat | tgcttatttt | aagttccaaa | ggtgaagtct | 3420 |
| ttaagaataa | aacattacca | actcctgctt | ttatatgtaa | gcaaacttga | | 3470 |

<210> 12137

<211> 3470

<212> DNA

<213> Homo sapiens

<400> 12137

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gcttttctcat | ccggccgggt | tgctttcccc | tgcggtcgtc | cagactattg | ggcgctagcg | 60 |
| agacgaacta | ttggtacggg | gctagagagg | aaggcttttg | gattgccggg | gagcagcgag | 120 |
| cgaccgactt | ccgtttccag | ttaccaaggc | acgaggatcc | ggtgttccaa | cccaggggga | 180 |
| aaaatgcggc | ctttgactga | agaggagacc | cgtgtcatgt | ttgagaagat | agcgaatag | 240 |
| taggagcgcg | cggggaggac | gcgggagtg | gtgggtgtgg | tgccaaggg | tggagtgggg | 300 |
| gcgcggtgcc | ggagaccggt | tcgttcgggc | gcggtctcca | gtcctctttt | tgccctcagc | 360 |
| attggggaga | atcttcaact | gctggtggac | cggcccgatg | gcacctactg | tttccgtctg | 420 |
| cacaacgacc | gggtgtacta | tgtgaggtga | ggcggggccg | ggcaggcagc | atggaccag | 480 |
| gggagagggg | tcctgggtcc | cacgagcctc | cttcatccgc | aaccttgctc | cccctttacc | 540 |
| cttttagtga | gaagattatg | aagctggccg | ccaatatttc | cggggacaag | ctggtgtcgc | 600 |
| tggggacctg | ctttggaaaa | ttcactaaaa | cccacaagtt | tcggttgac | gtcacagctc | 660 |
| tggattacct | tgcaccttat | gccaagggtt | gtggggcggt | ttccaattct | gccacgggcg | 720 |
| atgaagtcaa | ggattaggca | gattgtccgg | cagcttctct | cccacagagt | ccctgacagt | 780 |
| gtgcttgagg | gagtttcagc | acatggagat | gtgtagaggt | cttgcagctt | gagcatggtc | 840 |
| agggctatgg | ctataggaatg | ctatgtggct | gcgtagggtt | agttttctcc | agcgaagtag | 900 |
| aagagcctag | ggagaccag | ctagagatca | gaaagcaaat | aagtggcagc | aatgaagaca | 960 |
| ccgggggtcca | gaaaaagagc | tgtaaacctg | gccatggagg | atgatccttg | tagagttgag | 1020 |
| aaaataactt | tttctatttt | tttctttttc | tttcttgctc | tgttttttct | tttcatttct | 1080 |
| ctttctcttt | cttcttgaca | cagtttcaact | ctgtcgccca | ggctagagtg | cagtgggtgcg | 1140 |
| atctcactgc | agcctccact | ttccagtttc | cagtgattct | tgtgcctcag | tagctgggat | 1200 |
| tacaggcatg | tgccaccaca | cctggctgat | ttttttgtgt | gttttttagta | gagacagtgt | 1260 |
| ttcactgtgt | tggccaggct | ggtctcgaa | tcctggcctc | aagtgatcca | cctgccttgg | 1320 |
| cctcccaaag | tgctgggatt | acaagcgtga | gccactgcac | cgggcaactt | cctgcatttc | 1380 |
| tgctcaggag | atagacagtt | tgaggaaaac | atgagtctct | ctgtttccct | taaaattatt | 1440 |
| tcagaaaatt | attcacagat | ccagcagcta | gcttgtctgc | atggatagaa | atagtaacgt | 1500 |
| ttttatgtct | cttggatttt | aattctctta | tagtataaag | tttggataaa | gcctggtgca | 1560 |
| gagcagtcct | tcctgtatgg | gaaccatgtg | ttgaaatctg | gtctgggtcg | aatcactgaa | 1620 |
| aatacttctc | agtaccaggg | cgtggtggtg | tactccatgg | cagacatccc | tttgggtgag | 1680 |
| agagatggta | gctgttacag | aactcaagta | ctcttattca | agaagggtat | gtcttcaatc | 1740 |
| tgagtgcctg | agagaataaa | ttctcagcac | gtttttgaatc | ccagaaaagac | cagaactgta | 1800 |
| ttttttccgt | ctttgttatt | tccagccctc | aatatgggca | tattgaatga | cttcagttag | 1860 |
| ttagtgtctc | ttcttttgaa | tcccagggtt | ttgggggtggc | agccaaatct | acacaagact | 1920 |
| gcagaaaagt | agaccccatg | gcgattgtgg | tatttcatca | agcagacatt | ggggaatatg | 1980 |
| tgcggtcatga | agagacgttg | acttaaaacg | aagccattcc | aaggacagac | ggctgtatgg | 2040 |
| aaaggccgag | ctttgtttcc | tgtgtttgtg | tggactccac | catcatgttg | aattttgtca | 2100 |
| acactctggc | ctcttcaggg | acttcttatt | tactgtactc | tctatcactg | acaaatgcag | 2160 |
| gctggattct | tattatatac | agagatggct | caaaaatggg | gtttcagatc | tttgtgacga | 2220 |
| aatagaatac | tgtttcatat | ttgaatcaga | gggcttcttg | ttctgagaaa | taggttcaaa | 2280 |
| atcattggaa | ccaggaacaa | gaatagctta | ttgttatctg | tgataaact | gttttctaaa | 2340 |
| cacaaggatt | ttctttttta | ttaatatgca | acatagacat | tgccataaca | gaataataaa | 2400 |
| ccacatgtgg | ggtttttaaa | atgaaatttg | gctaatagga | gcaattcagc | tatttttcta | 2460 |
| tacagtaatt | gggtgtgggt | atagagaaa | aacgggttca | aaccccaact | ctgccacctt | 2520 |
| ccagctatat | ggccttgaat | gagtcattca | gctttaataa | ggttcatttt | cttctgttta | 2580 |
| aaaagacaca | aaacttgaaa | atcagctttg | gccatctacc | tgagaattag | aaagtctgat | 2640 |
| tttttgaatt | agaaatcatg | attgtaggct | gggcacagtg | gctcgcgcct | gtaatcccag | 2700 |
| cactttggga | ggccaaggcg | gacggatcac | ttgaggttag | gagtttgaga | ccagcctggc | 2760 |

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|------|
| caacatggtg | aaaccccatc | tctactaaaa | aaaaaaaaaa | aattaggtgt | ggtgacacat | 2820 |
| ggctgtgggc | ctagttactt | gggaggctga | ggcaggagaa | tggcttgaac | tggggaagca | 2880 |
| gagcttgag | tgagccaaga | tggtgccatt | gcactccagc | ctgggcgtga | cagagtgaga | 2940 |
| ctccatctga | ttgtaaagca | tctagtacag | tgtacagtgc | cttggaatg | ataggtatgg | 3000 |
| aataaatggt | aattatTTTT | atattatata | tattatgtat | tcctgttatt | aagtgtagag | 3060 |
| ttttatgagt | ataatttgat | tttattacct | tcttttttac | aagctgtttt | ctcagtattt | 3120 |
| ttcttggatg | ggatgacgct | aggctggaaa | gtttttttca | tcactatgat | tttataaaac | 3180 |
| aattttttct | atgaaccttt | acttacttga | ctggatttga | ctaaaagcac | tgatcagagg | 3240 |
| ccacgacata | aaaatttcagt | ccctttgtcc | ttccccgtgc | ctcccaaagt | tactttaaga | 3300 |
| tccttagaat | atttctttta | atattttata | gacaaaaaat | ttaaagacta | tctgtattgc | 3360 |
| aaaattaaac | tatttcttta | atgaatatat | tgcttatttt | aagttccaaa | ggtgaagtct | 3420 |
| ttaagaataa | aacattacca | actcctgctt | ttatatgtaa | gcaaacttga | | 3470 |

<210> 12138
 <211> 564
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|-------------|-----|
| <400> 12138 | | | | | | |
| aaaaagataa | aaaaggaata | acagtaccta | tctcgaaggc | tgttgtgagg | tttaaattgga | 60 |
| ttaataaagc | gctcagcaga | gaacctggaa | cgttgtaaac | gctttatgtg | ttagttattt | 120 |
| ctaccatcgt | aaatgtcagc | ttttacagtt | ataaaacccc | tttagcgcca | ggcgcgtcgc | 180 |
| acctgcagct | ctgctggaag | ctgggcaaac | ggtcgcagcag | gcggccgagc | gacgcctcca | 240 |
| cgtcgcaaaa | caggcggtgg | atgcgctcgg | tgcactcggc | gccgcggatg | aaggtcttgt | 300 |
| agttagcgaa | ggccaagtcg | cgcgtctgct | gcagcagctg | cgcccgtcc | tccgccaggc | 360 |
| gctcgggctc | gcgcgcgagc | cgctccagcc | ccgagccgct | caactcccgg | aggtagcggc | 420 |
| ccacatcggg | ccgctcgcgc | cactgggcct | cggggaagcg | gtcccggaac | agcgacgcca | 480 |
| ggagcccttc | atcctccacc | tcgccgagag | ccgctgctgt | ggcctgggct | accgatggga | 540 |
| tagtcgcgcg | ggtcgccatc | ttcc | | | | 564 |

<210> 12139
 <211> 4600
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|------|
| <400> 12139 | | | | | | |
| gaactttttc | actgttatga | ttttattgcc | attttgcttt | tttagatgtg | tgcagcagac | 60 |
| taaaacatta | atgagataat | tgatttttgt | cccataacat | tacaaagctg | attcgactaa | 120 |
| gccccagaag | aaaacagcca | gggtgctata | gtcaccttag | cttagcatct | tggcttcttt | 180 |
| gtatctgtag | ttgttggaac | attgaagaga | cgcttcaaga | aatacagttg | caggatccca | 240 |
| gaaagaataa | taacaaggct | ctgggctgtc | gaccaccagt | tcacgtagtt | atagtttgat | 300 |
| tggataagga | aaaagtcagc | cattttcctc | atccgggcaa | agttgtagta | tcgccacatg | 360 |
| tgaaagatat | tgttctgcac | ctttttgtgtg | ccgtcctatg | agagggacaa | ttttaagggg | 420 |
| gattcttcca | aaccccatc | tagcctcacc | tgagcgctca | ctagcactaa | cctatctcaa | 480 |
| gtcaaataat | ttaccatat | gattttaaga | tgtacaatac | aatgatagtt | gttaaattgtt | 540 |
| gtgtttgcta | tgtatgaaat | atggtctgga | tttgagttaa | aaatttttgt | ttttgtttta | 600 |
| tgagacaggg | tctcacttgt | ttgcccaggc | aggagtacag | tggcgagtc | acagctcact | 660 |
| gcagcctcaa | ccttctgcgc | tcaagtgatc | ttcccacctc | agcctcccta | gtagctggga | 720 |
| ctacaggcac | atgccactac | acccagctaa | tttttttttt | tttttattgt | agagacaggg | 780 |
| ttttgccatg | ttgcccaggc | tcactctgaa | ctactgggct | caagagatcc | accacactg | 840 |
| gcctcccaaa | gtgttgggat | tatggctcatg | agccactgcc | ccggcctttt | gttttgtttt | 900 |
| taaataatgg | aaaacttcag | tactcaaaact | agagagctct | tccagaggac | ctctagattt | 960 |
| agatgtactc | agcatgtcgt | taccattcca | ggtgatgttt | tatgttctct | gtatatggta | 1020 |
| gaagacaagg | gcctgtggac | tttttattaa | aaggccagat | ggtaaatatt | tttggctttg | 1080 |
| caggccccgt | tgactgtctga | actcttgcca | ttgtagtaca | aaagcagcca | cagacaatat | 1140 |
| gtaattgtca | aatgagcatg | gctgtgtttc | aagaaaactt | ccatttacaa | aaacaggcag | 1200 |
| tgagcttttg | tgcatttagg | agagactatt | aagaaagtga | aaagtggccg | ggtgcagtgg | 1260 |
| ctcatacctg | taatcccagc | actttgggag | gccgagacgg | gcggattacc | tgagatcagg | 1320 |
| agtttaagat | cagcctggcc | aacatggtga | aacaccgtct | ctactaaaaa | tacaaaaatt | 1380 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agccaggtgt | ggtggcacac | gcctgtaatc | ccagctactc | gggaggctga | ggcaggagaa | 1440 |
| ctgcttgagc | ccggggaggca | gaggttgacg | ggagctgaga | tcgtgccact | gtactccagc | 1500 |
| ctggccgaca | gcacaagact | ttgtctcaac | aaaaaaaaaa | gaaaaaaaga | aagtgaaaag | 1560 |
| tggccgggca | cggtggctcg | ttcctgtaat | cttagcactt | tgggaggcca | aggtgggcag | 1620 |
| atcacctgaa | gtcaggagtt | caagaccagc | ctggccaaca | tagtgatacc | ccatctctac | 1680 |
| taaaaatata | aaaattagcc | aggcgtggtg | gcacccgcct | gtaatcccag | ctacttggga | 1740 |
| gactgaagca | taagaatcac | ttgaaccccg | gagggcgagg | ttgcagttag | ccaaaattgt | 1800 |
| gccactgcat | tccagcctag | gtgacaaagc | gagactctgt | ctcaaaaaaa | tataaataaa | 1860 |
| taaataaata | aaaatacaaa | agtttagctgg | gcattgtggc | acacgcctgt | agtcccagct | 1920 |
| actcaggagg | ccgaggcagg | agaatcgctt | gaacctagga | ggcaaagggt | gcagttagcc | 1980 |
| aagatcacgc | cactgcactc | cagcctggga | gacagaatga | aactccgtct | caaaaaagaa | 2040 |
| aaaagaaagt | gaaaagacat | tgccagaatg | ggagaaaata | tctgcaactc | acatatctta | 2100 |
| ggagggatth | gtatccagaa | tatatataca | aaattcaaca | ataaaaaagac | aattcaggca | 2160 |
| gggtgcggtg | gctcacgcct | gtattcccag | cacttttgaga | ggctgagctg | gacagatcac | 2220 |
| aaggtcagga | gttcaagacc | agcctgacca | acatggtgaa | acccccgtct | ctactaaaaa | 2280 |
| tacaaaatgt | aggtgggctg | ggtggcacgt | ggctgtaatg | ccacctactc | aggaggctga | 2340 |
| ggcaggtgaa | tcaattgaac | ccaggaggca | aaggttgacg | tgagccgaga | tcacaccact | 2400 |
| gcactccagc | ctggacgaca | gactgactct | ctcaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 2460 |
| agtaaaatgg | gcaaaggatt | ttcattttta | tgagataggg | tctcactgtc | acagccttga | 2520 |
| catctctggg | tcaagcaatt | ctacctaagc | ctccccagtg | gctgggacca | caagtatgtg | 2580 |
| ccaccacacc | cgggttcattt | aaaaagttgt | tttgtttgta | gagacagggt | cttaccatgt | 2640 |
| ttcccaggct | agtcctcaaac | tcctgggctc | aagctatcct | acctcagcct | cacaaagtgc | 2700 |
| tgggattaca | ggtgtttggg | caactggcct | ggcctaaaat | gggcaaagga | ctcgaacaga | 2760 |
| catttctcca | aagaagagag | atggccaata | cgcacgtgaa | aagatgctca | acattattaa | 2820 |
| tcattaggga | aatgcaactc | aaaaccacaa | gataacattt | cacaccctct | aggatgactg | 2880 |
| taacaaaaaa | taagtgttga | tgaggaagta | gagaaattag | aaccttcata | cactgctagc | 2940 |
| aagagtttaa | aatggttttag | ccactgtggt | aaacagtctc | cagtaattcc | actttcaggt | 3000 |
| atacacagat | gaaaacatgc | taacacaaaa | acttgcatgc | aaatgtccat | agccacgtta | 3060 |
| tgatagccaa | gaggtggaaa | aacctaaata | tccatcatgt | ccattaactg | atgaatggat | 3120 |
| aaataaaaatg | tgtatccata | aaagagagta | ttattcagcc | ataaaaaaga | aagtactgat | 3180 |
| acatgctaca | acatggatga | acgttgagaa | catgctaaat | taaagaagcc | agtcttggct | 3240 |
| gggcgcggtg | gctcatacct | gtaatcccag | cactttggga | ggccgaggcg | ggccaatcac | 3300 |
| ctgaggtcag | gaatttgaga | ccagcttggc | caacatggtg | aaacctgtct | tctactaaaa | 3360 |
| atgcaaaaaat | tagccgggca | tggtgagagg | tgctgtaat | cccagctact | tgggaggagg | 3420 |
| agaatcactt | gaaccctgga | ggcagagggt | gcagttagct | gaggttgctg | cattgcactc | 3480 |
| cagcctggac | aacgagcaaa | actccgtctc | aaaaaataat | aaaaataagc | cagtcacaaa | 3540 |
| atcccatgta | ctgtgtgatt | ccatttaaat | aaagtgtata | gaggccagcc | acagtggctc | 3600 |
| aaagtgtcta | ttaatctcgg | cacagttagt | cataatgctg | agtaatctca | gctcagtggc | 3660 |
| tcaaagtgtc | gaatctgagc | actttggcaa | gccgagggtg | gaggattgct | tgagcgcagg | 3720 |
| agggttaggc | tgcaagttagc | tgtgatcaag | ccactgcaca | ctgcagcctg | gacaagagtg | 3780 |
| agaccctgtc | tcaaaaatta | agtatagaat | aggtaaatct | atagagacag | tagaacagtg | 3840 |
| ataggcaggc | ctggggtaat | agaatggaga | atgactaatg | gggagtggga | ttttgagggt | 3900 |
| ggggtgggtg | ataaacttcc | agaattagat | gctgatagtt | gcacagcctt | gtgaatatac | 3960 |
| taaaaaacca | ctgacttaca | cactttttaga | tggtgtacgg | tgtatgaatt | atatctcaat | 4020 |
| ttaaagaaaa | acaggcaatg | ggccagattt | ggcctgtcag | ccatacatag | tttgccaacc | 4080 |
| cttggtataa | aacgaagatg | gaatttcaag | agcttcaagt | cgtaatttat | tttgagacgg | 4140 |
| tgtcttgcgt | tatcccagac | tggagtgtag | tggcgtgatc | tcggcttact | gcaacctctg | 4200 |
| cctcccaggg | ttcaagcgat | tctcctgcct | cagccttccg | agtagctggg | attacaggtg | 4260 |
| cgcaccacca | cgcccagcta | atTTTTgtat | tttttagtaga | gacagggttt | caccatgttg | 4320 |
| gaaaggctgg | tttcgaactc | ctgacctcag | gtgatccacc | cacctcgccc | tcccaaagtg | 4380 |
| ctgggattac | aggcgtgagc | caccgtgccc | agccaagtca | taatttatga | agaaattcac | 4440 |
| atccccttgc | ctgtttgggt | tctacctaaa | tgaagtcata | ttccctctga | agttaaaaaat | 4500 |
| cagtttccac | agatgtttct | cttccacaaa | acacttcctt | acctcaattg | catccagagt | 4560 |
| atcattcagt | tgttttcttt | ccttctgttt | gtgatcagtc | | | 4600 |

<210> 12140
 <211> 8523
 <212> DNA
 <213> Homo sapiens

<400> 12140

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gaacttttttc | actgttatga | ttttattgcc | attttgcttt | tttagatgtg | tcagcagac | 60 |
| taaaacatta | atgagataat | tgatttttgt | cccataacat | tacaaagctg | attcgactaa | 120 |
| gccccagaag | aaaacagcca | gggtgctata | gtcaccttag | cttagcatct | tggcttcttt | 180 |
| gtatctgtag | ttgttggaac | attgaagaga | cgcttcaaga | aatacagttg | caggatccca | 240 |
| gaaagaataa | taacaaggct | ctgggctgtc | gaccaccagt | tcacgtagtt | atagtttgat | 300 |
| tggataagga | aaaagtcagc | cattttcctc | atccgggcaa | agttgtagta | tcgccacatg | 360 |
| tgaaagatat | tgtttctgcac | cttttgtgtg | ccgtcctatg | agagagacaa | ttttaagggg | 420 |
| gattcttcca | aaaccccatc | tagcctcacc | tgagcgtca | ctagactaa | cctatctcaa | 480 |
| gtcaaataat | ttaccatata | gattttaaga | tgtaacaatac | aatgatagtt | gttaaattgtt | 540 |
| gtgtttgcta | tgtatgaaat | atgggtctgga | tttgagttta | aaatttttgt | ttttgtttta | 600 |
| tgagacaggg | tctcacttgt | ttgcccaggc | aggagtacag | tggcgcagtc | acagctcact | 660 |
| gcagcctcaa | ccttctgcgc | tcaagtgate | ttcccacctc | agcctcccta | gtagctggga | 720 |
| ctacaggcac | atgccactac | accagctaa | tttttttttt | tttttattgt | agagacaggg | 780 |
| ttttgccatg | ttgcccaggc | tcatctcgaa | ctactgggct | caagagatcc | accacactg | 840 |
| gcctcccaaa | gtgttgggat | tatggtcatg | agccactgcc | ccggcctttt | gttttgtttt | 900 |
| taataaatgg | aaaacttcag | tactcaaact | agagagctct | tccagaggac | ctctagattt | 960 |
| agatgtactc | agcatgtcgt | taccattcca | ggtgatgttt | tatgtttctc | gtatatggta | 1020 |
| gaagacaagg | gcctgtggac | tttttattaa | aaggccagat | ggtaaataatt | tttggctttg | 1080 |
| caggccccctg | tgactgctga | actcttgcca | ttgtagtaca | aaagcagcca | cagacaatat | 1140 |
| gtaattgtca | aatgagcatg | gctgtgtttc | aagaaaactt | ccatttacia | aaacaggcag | 1200 |
| tgagcttttg | tgcatttagg | agagactatt | aagaaagtga | aaagtggccg | ggtgcagtgg | 1260 |
| ctcatacctg | taatcccagc | actttgggag | gccgagacgg | gcggattacc | tgagatcagg | 1320 |
| agtttaagat | cagcctggcc | aacatggtga | aacaccgtct | ctactaaaaa | tacaaaaatt | 1380 |
| agccagggtg | ggtggcacac | gcttgtaatc | ccagctactc | gggaggctga | ggcaggagaa | 1440 |
| ctgcttgagc | ccgggaggca | gaggttgacg | ggagctgaga | tcgtgccact | gtactccagc | 1500 |
| ctggccgaca | gcacaagact | ttgtctcaac | aaaaaaaaaa | gaaaaaaaga | aagtgaaaag | 1560 |
| tggccgggca | cgggtggctcg | ttcctgtaat | cttagcactt | tgggaggcca | aggtgggcag | 1620 |
| atcacctgaa | gtcaggagtt | caagaccagc | ctggccaaca | tagtgatacc | ccatctctac | 1680 |
| taaaaaatata | aaaattagcc | aggcgtgggtg | gcacccgcct | gtaatcccag | ctacttggga | 1740 |
| gactgaagca | taagaatcac | ttgaaccctg | gaggcggagg | ttgcagttag | ccaaaattgt | 1800 |
| gccactgcat | tccagcctag | gtgacaaagc | gagactctgt | ctcaaaaaaa | tataaataaa | 1860 |
| taaataaata | aaaatacaaa | agtttagctgg | gcatttgtggc | acacgcctgt | agtcccagct | 1920 |
| actcaggagg | ccgaggcagg | agaattcgctt | gaacctagga | ggcaaagggt | gcagttagcc | 1980 |
| aagatcacgc | cactgcactc | cagcctggga | gacagaatga | aactccgtct | caaaaaagaa | 2040 |
| aaaagaaagt | gaaaagacat | tgccagaatg | ggagaaaaata | tctgcactc | acatatctta | 2100 |
| ggagggaattt | gtatccagaa | tatataaaca | aaattcaaca | ataaaaagac | aattcaggca | 2160 |
| gggtgcggtg | gctcacgcct | gtattcccag | cactttgaga | ggctgagctg | gacagatcac | 2220 |
| aaggtcagga | gttcaagacc | agcctgacca | acatggtgaa | accccgctct | ctactaaaaa | 2280 |
| tacaaaatgt | aggtgggcgt | ggtggcacgt | ggctgtaatg | ccacctactc | aggaggctga | 2340 |
| ggcaggtgaa | tcacttgaac | ccaggaggca | aagggttgacg | tgagccgaga | tcacaccact | 2400 |
| gcactccagc | ctggacgaca | gactgactct | ctcaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 2460 |
| agtaaaattg | gcaaaggatt | ttcatttttt | tgagataggg | tctcactgtc | acagccttga | 2520 |
| catctcgggt | tcaagcaatt | ctacctaaagc | ctcccagagt | gctgggacca | caagtattgt | 2580 |
| ccaccacacc | cgggtcattt | aaaaagttgt | tttgtttgta | gagacagggt | cttaccatgt | 2640 |
| ttcccaggct | agtctcaaac | tcctgggctc | aagctatcct | acctcagcct | cacaaagtgc | 2700 |
| tgggattaca | ggtgttgggc | caactggcct | ggcctaaaat | gggcaaagga | ctcgaacaga | 2760 |
| catttctcca | aagaagagag | atggccaata | cgcacgtgaa | aagatgctca | acattattaa | 2820 |
| tcattagggg | aatgcaactc | aaaaccacaa | gataacattt | cacaccact | aggatgactg | 2880 |
| taacaaaaaa | taagtgttga | tgagggaagta | gagaaattag | aaccttcata | cactgctagc | 2940 |
| aagagtttaa | aatggtttat | ccactgtggt | aaacagcttc | cagtaattcc | actttcaggt | 3000 |
| atacacagat | gaaaacatgc | taacacaaaa | acttgcatgc | aaatgtccat | agccacgtta | 3060 |
| tgatagccaa | gaggtggaaa | aacctaaata | tccatcatgt | ccattaactg | atgaatggat | 3120 |
| aaataaaaatg | tgtatccata | aaagagagta | ttattcagcc | ataaaaagaa | aagtactgat | 3180 |
| acatgctaca | acatggatga | acgttgagaa | catgctaaat | taaagaagcc | agtcttggct | 3240 |
| gggcgcggtg | gctcatacct | gtaatcccag | cactttggga | ggccgaggcg | ggccaatcac | 3300 |
| ctgaggtcag | gaatttgaga | ccagcttggc | caacatggtg | aaaccctgtc | tctactaaaa | 3360 |
| atgcaaaaat | tagccgggca | tgggtgagagg | tgctgttaat | cccagctact | tgggaggagg | 3420 |
| agaattcactt | gaaccctgga | ggcagagggt | gcagtagact | gaggttgccg | cattgcactc | 3480 |
| cagcctggac | | | | | | |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| aaagtgctga | ttaatctcgg | cacagtagct | cataatgctg | agtaatctca | gctcagtggc | 3660 |
| tcaaagtgct | gaatctgagc | actttggcaa | gccgaggtgg | gaggattgct | tgagcgcagg | 3720 |
| aggttgaggc | tgacgtgagc | tgtgatcaag | ccactgcaca | ctgcagcctg | gacaagagtg | 3780 |
| agacctgtgc | tcaaaaatta | agtatagaat | aggtaaatct | atagagacag | tagaacagtg | 3840 |
| ataggcaggc | ctggggtaat | agaatggaga | atgactaatg | gggagtggga | ttttgaggtg | 3900 |
| ggggtgggtg | ataaacttcc | agaattagat | gctgatagtt | gcacagcctt | gtgaatatac | 3960 |
| taaaaaacca | ctgacttaca | cactttttaga | tgggtgtacgg | tgtatgaatt | atatctcaat | 4020 |
| ttaaagaaaa | acaggcaatg | ggccagattt | ggcctgtcag | ccatacatag | tttgccaacc | 4080 |
| cttgggtataa | aacgaagatg | gaatttcaag | agcttcaagt | cgtaatttat | tttgagacgg | 4140 |
| tgtcttgctg | tatcccagac | tggagtgtag | tggcgtgatc | tcggcttact | gcaacctctg | 4200 |
| cctcccaggg | ttcaagcgat | tctcctgcct | cagccttccg | agtagctggg | attacaggtg | 4260 |
| cgcaccacca | cgcccagcta | atttttgtat | tttttagtaga | gacagggttt | caccatgttg | 4320 |
| gaaaggctgg | tttcgaactc | ctgacctcag | gtgatccacc | cacctcggcc | tcccaaagtg | 4380 |
| ctgggattac | aggcgtgagc | caccgtgccc | agccaagtca | taatttatga | agaaattcac | 4440 |
| atcccccttgc | ctgtttgggt | tctacctaaa | tgaagtcata | ttccctctga | agttaaaaat | 4500 |
| cagtttccac | agatgtttct | cttccacaaa | acacttccct | acctcaattg | catccagagt | 4560 |
| atcattcagt | tgttttcttt | ccttctgttt | gtgatcagtc | tcaggccctt | catagaagac | 4620 |
| cccaaagttg | aggtagactt | gcacagaacc | gaagtgatta | tgctgattac | ttagacaaag | 4680 |
| ctgataaaaa | cctgtaggaa | ttcttagatc | attaccaagt | ctttgggtctc | ctccccctttg | 4740 |
| ttaaggattc | cctggaggta | tctgtccctt | agttttggaa | ttctactaca | ggaccttctt | 4800 |
| tttacttaga | aagtacaaag | atccccgttt | tgacatggaa | gacacggacc | ttatgttaaa | 4860 |
| cttatactaa | atattactta | ttataattgg | ccaaatttta | gtaactcggt | ctttccatac | 4920 |
| tgggtagtgg | caaacaatgt | tttctcttta | acataataat | cccacatctt | gtattaaagg | 4980 |
| actcctgctc | aacagattga | gttgaagtta | agagcatggg | gtttgcctgg | tccttgtata | 5040 |
| caattaaagc | tagggacacc | atcttgaact | tgaatttagg | aaagacaaaa | aaaaaaaaata | 5100 |
| gatgcatagt | gcatgaaagc | agctctcctg | gagtgattgc | ctccaaggcg | gtgtgtacag | 5160 |
| tgactcatgg | tttgggtata | tctgttgggg | ctgggggtgc | ctccctttgt | gtgtgcgggg | 5220 |
| gggagggggg | cgcggggtgg | ggagcggggtg | ggaaggagca | aggtggagag | gaccggtaga | 5280 |
| agatgggtgg | ggtgggatta | gaaagggtg | gcagtgtttg | aaagtcaaaa | tgattggaag | 5340 |
| gcactactgg | catgtagggg | ccaaagatgt | tcaagatctt | tttttttttt | agacgagtct | 5400 |
| cgctctgttg | cccagaccgg | agtgcgaatg | cgcgctctcg | gcccactgca | gtctctgcct | 5460 |
| ccaggttcaa | gcaattctct | tgccctcagcc | tcccaggtag | ctgggattac | aggcgcctgc | 5520 |
| caccacaccc | agctaatttt | tgtattttta | gtagagacgg | ggtttcacca | tattgggtcag | 5580 |
| gctggctgca | aactcctgac | ctcagggtgat | ccgcccacct | tggcctccca | aagtgtctgag | 5640 |
| attacaggtg | tgagccacca | cgcccagcct | gttcaagatc | ttttaacact | gatacacatg | 5700 |
| ctgtgcttca | tagtgaagga | ctgtctgatg | cccctgttga | gaaaatgtct | tttttagtgc | 5760 |
| agctggctat | taaagagggc | agttaagaca | ctgctgctct | ccaaagtggg | acaggcttga | 5820 |
| cctggctgga | ggagtgtctt | gctgtggagt | gtggatatct | cacatggata | tcatgcattt | 5880 |
| tcttttggtc | tgaatctgct | ttagtaact | gactcaaata | ttctgatgac | tggaaagaca | 5940 |
| tgcttcctcg | taatccattt | gttaatttga | attctgtatt | ataaatgggt | ctctgttttt | 6000 |
| tggtcacttt | cccagaatct | gattaactgg | agatgatgag | ataaaattga | gcggctgaac | 6060 |
| cctagactta | gaatgtctac | ctggagtgtt | gcccccaa | cgtcagtaga | ctgccacttg | 6120 |
| gcatccttgg | aggtcagcag | cctccaggaa | cactgggttt | tgggtgttaa | ggctgaattt | 6180 |
| ttttcctact | gttaaaacat | ctctgtatac | ttcctcatta | tttctgtaat | ttcataggac | 6240 |
| cctatgatta | ttataatagc | catggtaatg | aaaacagacc | tgtctcttgg | gtagagaagt | 6300 |
| taatctggcc | ccgaacaccc | tgggaggtgt | ctatgagaaa | tcctgtgtgg | ttatgtgccg | 6360 |
| tggcagcaac | atgccgggtc | tgtgacatcc | ccactgtccg | ctgaacctgc | caagacacat | 6420 |
| taaataggta | gcagaacccc | tgctacatca | cgagggaagc | agctgagtgg | taagattgac | 6480 |
| gtccacaggt | catcagcaca | gcggtctctg | tctgggggtg | gactgcccaa | ccccctgctg | 6540 |
| gggtttggag | ttgattggag | gattctgagg | tatcacagtg | atgggtgtta | ggggaggcag | 6600 |
| cacagcattg | ctgaacgtct | gcaatgttaag | aaacagtaca | gcaggacaaa | gaactgccca | 6660 |
| gaatgccaac | agcaccctgt | tgaagaagac | atgccttgct | cggaacacac | agctagtgtg | 6720 |
| gatccactaa | aatgtatgat | tctggggccg | gcgcggtggc | tcacgcctgt | aatcccagca | 6780 |
| ctttgggagg | ccgaggtggg | cagattacaa | ggtcaggagt | tcgagaccag | cctggctaac | 6840 |
| atggtgaaac | cctgtctcta | cttaaaaaat | acaaaaatta | gcctggcatg | gtggcgtgcg | 6900 |
| ctataaatcc | cagctacttt | ggaggctgag | gcaggagaat | tgcttgaacc | cgggaggcag | 6960 |
| gattgcagtg | actcgagatc | atgccactgc | gagcgacaga | gcaacactct | gcaacactct | 7020 |
| gtcaaaaaaa | aaaaaaaaaa | agtacgattc | tggctgtaga | attttttatt | tttttttaga | 7080 |
| cggagtcttg | ctctgtcacc | caggctggag | tgcagtgatc | ttggctcact | gcaacctcca | 7140 |
| cctcccaggt | tcaagcgatt | ctcctgcctc | agccacccaa | gtagctggga | ttacaggcac | 7200 |
| atgccaccaa | gcccggctaa | tttttgtatt | tttagtagag | atgcgttttc | accatattgg | 7260 |

| | | | | | | |
|------------|-------------|------------|------------|-------------|-------------|------|
| ccaaggtggt | ctcgaactcc | tgacctcagg | tgatccgcct | gcctcagcct | cccaaagtgc | 7320 |
| tgggatgaca | gatgtgagcc | accgcacccg | gcctggctgt | agagttcttg | aatgaacttg | 7380 |
| cttgggtggt | gagctcccca | atgatgtccc | agatttgggc | atttgctgct | tggcagtgca | 7440 |
| cacctacaac | aagcactcca | tggacacttg | ctcccaagct | agatcttgat | taggccaggc | 7500 |
| cacagtgagc | ttagtagtgg | ctgctgttct | aatagaaatt | cagaggtaag | aaaagtctct | 7560 |
| gataagttta | tttaaaataa | atgttggtac | agtggagtaa | gatcaacaaa | gtctattact | 7620 |
| atgtaaacaa | aaattagaaa | gttaaccgat | ttctaagata | aagaacaaaag | gaaatgaaca | 7680 |
| gcctctaact | ttcatactga | gttcaccatc | cttggacagc | atgatataag | accatagtat | 7740 |
| gggtaaaagt | acttgacctt | tgaataagta | acttgaaaac | acttaccgtc | ctaaaaaaaa | 7800 |
| aaaataggat | taactggccg | aatacaaaaa | acttgacctt | gtgaatctct | gacttgccag | 7860 |
| aattgctcct | aaaggcagca | gaacctttac | tccccaccc | cataagctga | agcagccttc | 7920 |
| tttgaaatct | ctggatcagt | ctccaaagca | ccattatcca | attttgtttt | aatatattaa | 7980 |
| aaatgtattc | tctccctctt | catcccca | tccgagtaca | tgtaatgatt | acctcttcag | 8040 |
| ggagaggcac | cccgctctgcc | ccatggcttt | gagcatggcc | cctgatgtaa | gaagccaaac | 8100 |
| catatgtttt | agctcctgtt | ggtgattatt | caccagctg | gagtttccct | ctaactgcag | 8160 |
| gtccatttca | ttaacagggtg | gggaatcaca | gcataataaa | gacaaccaga | ccttggttttg | 8220 |
| gcctaaaacc | tgaccactt | tatgagtaaa | ggagaaaaaa | aaaagcccc | cagtatggcc | 8280 |
| agtcacccac | atacctcgta | actgaaatag | aagtatccag | tctggtgggc | aaattgccaa | 8340 |
| aagcattccg | tgctcctctg | aggtatcatg | atggcaaagt | catatcgatc | agctccacgg | 8400 |
| aagagtggct | ggtccccaga | gccacttaga | ggttctgtct | tctggctcct | ggcagacgtc | 8460 |
| actagattca | gaacgaccag | cccagcccca | aagagcaaa | gggacatgcc | gctttctgga | 8520 |
| gcc | | | | | | 8523 |

<210> 12141
 <211> 6960
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| <400> 12141 | | | | | | |
| attctaaaaat | tggattcata | tttactaaaa | aacactgact | tacacaaatg | gatgaattat | 60 |
| ttagtatgtg | aattacacat | cagtaaggca | gtttacagaa | ttttcattct | cttacctaaa | 120 |
| gtctgtgcta | tctgagctgg | tggaaaaagg | acttggagac | agcgatttaa | atacggaaaca | 180 |
| aggtcttcca | ggaagacagt | gcagaactgg | acaaagagct | cttgctcccc | gctgctgaag | 240 |
| gcagcctctt | cagcgcgatg | gaaggccagg | attatttttag | ttacctaaaga | gacaagggca | 300 |
| ccgtcaatta | ctgggacagc | ctatcaccac | tgggacagca | gtgcatgaaa | ctaggcaaaa | 360 |
| aaatgtatgc | ccctccagtt | ttcctgaaca | aagtaattta | acagtacatt | attttactgt | 420 |
| ctcattttaa | ctcagaatta | tggtcattgt | ccacaattgt | gtcactttat | taatgtgaag | 480 |
| ttcagaccca | acttggtaca | ttacgggtat | agtttccggt | tccagtggag | gagtgtcata | 540 |
| aaactataga | gagaatacat | ggttttgggt | tttttttttt | ttttttttaga | gacaggattt | 600 |
| tgctctgtca | cctaagctgg | agtgtagcgg | cacaatcagc | tcactgtagc | ttcaaactcc | 660 |
| tgggctcaag | ggatactccc | accttagcct | cccaagtagc | tgggactaca | ggcgtgcacc | 720 |
| atcacgtctg | gctaagtttt | aaaatttttt | gtagagacag | ggtcttgctt | tgttgcccag | 780 |
| gctggtctgg | agccccctgg | ttcaagagat | cctcctacct | cagcctccca | aagtgttggc | 840 |
| attacaggcg | tgagccactg | cgccccggccc | aatacatggt | tcttaacttc | cacggaggac | 900 |
| caaccagaac | tgtgctggat | ccaggaaaaat | gaagcaaaac | tatacaagct | ttctactaag | 960 |
| ccccgaggtt | tcagaaagct | agaaccactg | gaaaactgta | agaaaacagc | taggaaagag | 1020 |
| aagtttcaaa | accaacagag | cagcctagct | gacactacag | atatgtggca | tagcgacagg | 1080 |
| gtaagaacac | agactctgat | gctggacttc | ccaagttcaa | gtgactcaca | cctgtaatcc | 1140 |
| cacactttga | gggtctgtag | caggaggatc | acttgagtcc | aggagtgtga | gaccagccta | 1200 |
| ggcaacatag | ggagacacta | tctctctgta | aaataaaaca | cttttaacaa | taaaaataaa | 1260 |
| agaatatgct | aaaggtaaa | ggttttgttag | atgtaattaa | agtcctaat | catctgactt | 1320 |
| aatcaaatga | agttttttaa | aggagggtacc | taaaagaaga | gactcaagag | agtagctctc | 1380 |
| ctgctggcct | tgaggaagca | aacagccatg | ttgtcagctg | cctatggagt | ggacagcctc | 1440 |
| taggagctga | ggcttcagtt | ctgcaattgc | aaagaactga | cccctgccaa | cttgcagtag | 1500 |
| tctgaaatgg | agccccaacc | tccagatgag | gccatagtcc | agccaacacc | ttgatggcaa | 1560 |
| ccctgtaaga | ccctgagcag | agaggacccg | gttgtgctgt | gcctggactc | ctgacccacc | 1620 |
| aaaactggaa | ggtaataaat | gtgttgctgg | aagctactaa | gtttgtggaa | atttgttatg | 1680 |
| cagcactaga | aagctaatac | gtgtattacc | gaattgttac | tataggcaaa | tcacttcatg | 1740 |
| gactgtccta | ggtcccatga | agggcaactg | gccagagctt | ctcaatcagg | agaacctcca | 1800 |
| aaaccacact | agacctctcc | atgtcagcag | acaccgtcaa | atagacgggt | ttattacaaa | 1860 |

| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|------|
| aatctggcca | cccattacca | gagaaggccc | agggtagcag | aaaaccaaca | gaatgtgctc | 1920 |
| accttggcaa | gggcatcttc | caaggcccca | gtcacatcct | gcgccagggc | cacagggcag | 1980 |
| cagagggcga | gatcattgaa | ggcaaccaga | atattgttga | gaaagcaggg | gaggggtggg | 2040 |
| aaatctagga | gcaccatggg | tggctgcagc | gtccccggct | gggtggctgg | cacagcagca | 2100 |
| ggcatgttac | tggtgcccag | gatggctgga | gccgagatga | gcatgtagga | gttcatttct | 2160 |
| tcctggaatt | tctccacggg | gttcctgaat | tgctttctgg | aaagtgtgta | tggccacccg | 2220 |
| ctggaaaaca | ggagccaact | gaccccgga | atcagctccc | acccggctga | aggacagccc | 2280 |
| aaagtacatg | cactggccca | gcagagagtc | caggtggccg | cctatgcccc | ggtaaagggtc | 2340 |
| ggtctccagc | acctgcagga | attgtgagac | cttctgtagc | acccagccat | ggaagatggc | 2400 |
| actctcattc | acagtgtgct | cacccatggc | agggggcagc | agtgggtcct | cgtctgagaa | 2460 |
| gatggcacgg | tactgggtga | tgatatcaaa | gagatggaca | cgggaggcct | cgatggtttt | 2520 |
| tgtaatatgg | aaatagggat | catcattagg | aatggcagtc | aggatggacc | ggagccaagc | 2580 |
| atctcggggc | tgaagaaact | tcaccctcaa | ctcagcctca | gtgaagacgt | ccatgcgccc | 2640 |
| caggtagcca | atgacacgga | ggcaggcagg | aagctggatg | ttggctcctca | gttgctggat | 2700 |
| cagctggctc | agcatcagct | gcatggactg | gcgcacttcg | ttcacgatgc | cctgacaata | 2760 |
| cacagagaga | gtcacactgc | gctgggaagg | atgctctcta | gaacccattc | ccctaactct | 2820 |
| gaagactgca | gaccaacatt | cccatggctt | tcctgaaatg | tgaagtaatt | tcctaaagct | 2880 |
| gatgcctgta | ggttcaccaa | caaagatcag | gttagttaac | tctcttgctt | aaaaagctta | 2940 |
| aaacctggcc | aggtgcagtg | gctcaaacct | gtaatcccag | caccgtgggc | aggcagggtca | 3000 |
| cttgagggtca | ggagtttgag | accaatctgg | ccaacatgtg | aaacctcgct | tctactaaaa | 3060 |
| atataaaaaa | caggtggggtg | tggtgggtga | ggcctgtaat | cccggttact | cgggagccag | 3120 |
| aggcaggaga | atcacttgaa | cccgggagat | aaaggttgca | gtgagccaag | gtcgcggcac | 3180 |
| tgcactccag | cctgggggac | agagcgagac | tctgtctcaa | aaaaaaaaaa | gaaaaaaaaa | 3240 |
| aaagcttaaa | atcctccagt | gacttcccac | tgcaatcaag | aaaattccaa | ccacttgttg | 3300 |
| ggacttacac | tggtggccct | acctggctct | ccatcttcac | ctgcttecta | gtgctctccc | 3360 |
| gctgtacaaa | tcattaacc | ctggctgcct | ctgtatccct | taaacacctc | aatttctgcc | 3420 |
| cacttcagcc | ctctctactt | gttcttcaca | ctttctgggt | tgctctctcc | ccagatcttt | 3480 |
| gtgggctggc | acctccttct | catttaggtc | tcagcttaaa | tgttacctcc | ctagaagagt | 3540 |
| ccttcttgat | caccctacct | aaagaaacct | accctagact | cccttaccct | attccctggt | 3600 |
| tttttcttta | gacaccacta | tctgaaatga | tatcatttct | ttgtcaatta | tcagacttcc | 3660 |
| cattagcacg | taagctgcat | gagagccagg | accactttat | tcacactgta | tccccagcat | 3720 |
| atagagcagt | gcttggcaca | tgattaatat | gtattttgaa | taaatgaatg | ttttctgttc | 3780 |
| aggcatacct | ggctggcaga | aactgatgtg | aaacatgcaa | gagtttctac | ctaaagcttc | 3840 |
| agtcctgacc | acagaataaa | tgattacaag | aacattactt | tgagtccctc | ctgggcaagg | 3900 |
| tggctacctg | gatgacaggg | atggaagagt | atttccctct | cagtcggcgt | acgtaggctg | 3960 |
| caagctccag | ggcctcttca | taataactgt | tccggacaca | ggtgtccatg | agctgaggaa | 4020 |
| tctccagtat | ttccaaaatt | tctgtgtgcc | ggtttagggg | caggctattc | atccggcggt | 4080 |
| tggagctgat | ctcctcgggt | tccttcacaa | agttcctagt | aataatcaga | agaatgttga | 4140 |
| tccttcactg | ctctgtacc | aaaccttagc | taagcttacc | aagtacctgc | tatgaacatt | 4200 |
| gggtggatg | atctatctga | tttattcctc | acaccccacc | tataaggtaa | gtattattac | 4260 |
| aattgaggaa | atttttaatc | ccagagaggt | taagcaactt | gtccaaaaac | atacaattaa | 4320 |
| taaatctaac | agatggagat | ccagatatgc | cacttgctgg | ctgtggcaag | gtacttggcc | 4380 |
| tctctgaacc | tatttctcta | ttagtaaaac | ggtatatagg | gccaggcgca | gtggctcacg | 4440 |
| cctgtaatcc | cagcactttg | ggaggctgag | gtgggaggat | cacttgaggc | caggagtcca | 4500 |
| agtgaacccc | catctctact | aaaaatacaa | aaaattagcc | aggcatgggtg | gtgcgcgcct | 4560 |
| gtagtcccag | ctactcagga | ggctgaggca | ggagaatcac | ttgaacccag | gaggtggagg | 4620 |
| ttgcggtgag | cagagatggc | gccactgcac | tgcagcctgg | ccaacaaagc | aagactccgt | 4680 |
| ctcaaaaaaa | aaaaaaaaaa | aagtatatag | gaccctcctc | ataagggtgt | aagaactaaa | 4740 |
| tgagatgatg | tggtggaagc | atttaacata | gaacttgaaa | cagagcgaat | gcgtcaaagt | 4800 |
| aaaaatagta | aaagagacac | agttaaatat | ttaacagtag | ctatcattat | tttcaaaatg | 4860 |
| aagcactaac | tgcttagaat | ccacaatctt | tccctcagg | tcttcatctt | ctcctatgct | 4920 |
| aatgttcaac | catagttcct | gccacagtct | actttcaaca | cttctccata | tttgagagaga | 4980 |
| cctgctttat | caagtcccct | atctattctg | gagcatggaa | gggtacaaaa | gctgctgtca | 5040 |
| aatatccaaa | ggctcaaaaag | aaaaattaaa | ctttaatcat | gaaaggctgg | aaggcagaac | 5100 |
| tagggataat | ggagacagaa | tatgactcac | aaaggacttt | tttttttttt | tttgagacgg | 5160 |
| agtcttgctc | tgtcaccagg | ctggagtga | gtggcacgca | tcactctggc | tcactgcaac | 5220 |
| ctccgcttct | caggttcaag | taattctcct | gctcagcct | cccagtagc | tgggactaca | 5280 |
| agcgcgtgcc | accacgcccc | gctaattgta | tttttagtag | acatgggggt | ttcagcatgt | 5340 |
| tagccaggat | ggcctcgatc | tcttgacctc | gtgatccgcc | tgcttgggcc | tctcaaagtg | 5400 |
| ctgggattac | aggtgtgagc | caccgcaccc | agcctttttt | tcttttttta | agagagtttc | 5460 |
| actttgtcac | ccagtctgga | atgcagtggc | acaatcacag | cccaccgcag | cctcgacctc | 5520 |

| | | |
|------------|-------------|------|
| cctcaatctc | cggggcccaa | 5580 |
| ctgaccccc | cacctcaacc | 5640 |
| agctaatttt | ttattttata | 5700 |
| tcttgggttc | aagcctcagg | 5760 |
| agccatccaa | atggagagac | 5820 |
| tcaccttccc | gtcaatggaa | 5880 |
| aataagtata | taaagtgtgca | 5940 |
| cccgataata | agagcttttg | 6000 |
| gagggacgtg | cttctgggta | 6060 |
| cgctactaat | ctctgtcttg | 6120 |
| agtggattat | gcctgtaatc | 6180 |
| aaaagatcga | gaccatccca | 6240 |
| aaattagctg | ggcgtgggtg | 6300 |
| gagaatcgct | tgaacctcag | 6360 |
| cactccagcc | tggcgacagg | 6420 |
| tacctatctc | gaaggctggt | 6480 |
| ctggaacgtg | gtaaaccgct | 6540 |
| acagttataa | aaccctttta | 6600 |
| gcaaacggtc | gagcaggcgg | 6660 |
| gctcgggtga | ctcggcgccg | 6720 |
| tctgctgcag | cagctgcgcc | 6780 |
| ccagccccga | gcccgtcaac | 6840 |
| gggcctcggg | gaagcgggtc | 6900 |
| cgagagccgc | tgctgtggcc | 6960 |

<210> 12142
 <211> 10940
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|------|
| gccagtcaca | tgcttacctg | cattttttaa | gacagctttc | aggtattttg | ggactacatt | 60 |
| attaccaaac | cttggctttg | ggagattata | caggctccgag | gaactcgtgt | ctactgcaga | 120 |
| cgaatgcaat | tacccacact | tctccatac | agaattgtta | ggaaatgtcc | actccttttg | 180 |
| gggtgatttt | tctcctcaag | ttgtagccaa | cattttgtcc | gtaactgatt | tcagggcaaa | 240 |
| cattttctgac | atcttctctc | agctcagctc | gccatgcctt | ggcaatccag | tttctgtgca | 300 |
| tatgcgagcc | atccaagttg | atgccaagta | agatttgccc | agctcaaagt | gaaagtgttt | 360 |
| gcgtcttggt | atccggaatc | ctcagcccc | gtagcaaagc | tttagtcatt | caccttcac | 420 |
| caatagacgt | ttgtgaacgt | cctgctgtcc | attttgtcaa | taaacaggca | gccctgcagg | 480 |
| tggtccatct | cggtctggat | gatgcgggct | gcccaccgct | tcgcctgcca | caccacctgt | 540 |
| tctccattgg | ggtccagccc | tgcaaaggaa | gttacagccc | tggtgagtgg | gaacagctga | 600 |
| actgcatcat | cctcaacctc | cctaccctcg | cccccggtcc | tggtgtttcc | cattgacaag | 660 |
| aggcaacagc | agatggcaaa | tgtagacagc | agctcctctt | ctaactggaa | aacgtccctc | 720 |
| atctcgggtc | attaccaagc | gttcaacctg | gttcccaact | ctggtaatta | ggttatcgag | 780 |
| ctcactgtag | agctgagatg | agaaatcatc | tttctacggg | gcgacccttc | cgaacactcc | 840 |
| tcccactttc | gaggtacctg | tgggctccca | actcctaaca | gaggttctgc | agcttgagac | 900 |
| cccacttggt | tttctgacca | tcttgaaccg | acgggcttgc | tgtgcaggaa | caatcacccc | 960 |
| gaccccagca | gagcccgcat | tccgcgagcg | atcctgtggt | accacggggg | aatggcctag | 1020 |
| ccccctgggc | tgggtcaggg | tggcgggggc | taacccccac | ttctccaact | ccaccgtggc | 1080 |
| ggatctaact | ggggccgaag | agcgtgtttg | cctcagagag | caaggagca | gaaagcagac | 1140 |
| gccaggctgt | caggtaacag | cggaaactag | ggacctctcc | tcgcccctgc | gtcctatctg | 1200 |
| agcgggctct | acccacacag | agcttctatc | cgctctgagg | cctctccgct | cccgcattcc | 1260 |
| acttcgctcc | tgcgggagggt | ccggcggtat | aaccgcgacc | acttctgcgc | tctcggggag | 1320 |
| tcgggcagaa | gagacgcgcg | cgctgtctca | gcagccccgg | tccccgccgc | ccgcacctga | 1380 |
| gatctgcacc | gcctggaagc | ggggcacgca | ggccaggaag | ccggcgacgc | tctcgcagcc | 1440 |
| ctcgggaaag | gtgaccaggc | ggctgtcaag | cactcgcagg | ctgggggttc | cgaacacgcg | 1500 |
| cagggggaag | ggctccattt | ggcgggagcg | gcgctggcgg | ggcgggcact | cccgcacacag | 1560 |
| cgctcggggg | agctccagcg | ccagcacctg | ccgcggccac | cccagctgcg | gcgcgcttag | 1620 |
| gccacgcag | cgccgcgcgc | gcacacacct | gaccagccgt | tgctgcagcc | gctgcagctc | 1680 |
| gggcccgcct | agctgcgccc | gctccaccgg | ggccgcgcag | ccgcgcagca | ccgggtcccc | 1740 |

| | | | | | | |
|-------------|-------------|-------------|--------------|-------------|-------------|------|
| gactttggcac | acgtgcgaga | acggcggttc | gggaggaccc | agcaccagac | gcctcaggtg | 1800 |
| gcgccaatat | gagcgccgca | gcgcgcggcc | ctcgacgcgcg | tccggggcg | ccgtggagct | 1860 |
| gcaagcccgg | acaccgacgg | ctgccgcccc | gccccacggc | acggccgccc | acagtggcca | 1920 |
| aagactcagc | gcgccccaca | gccggggccat | ggcgggcccc | ttaacagtga | ccgggcccgc | 1980 |
| cccttccggc | cgcagcgcgg | ggcacgcgcg | gaagcgcctg | cggccagcac | acagcgaagc | 2040 |
| cgcgactgga | tccccgcctt | cctgcttaga | ctggcagtga | gcaccgcccc | cttccgcctc | 2100 |
| cctcccggga | gcgccttccc | gcctcccga | cccgcgcccg | accttccagg | gcgaggcagt | 2160 |
| cctggccacc | ccggccgggg | aaacctcacg | accgcgttct | ggaggcaggg | gacgcgggct | 2220 |
| agggccccc | gctgggcggg | tggcctgcg | cttcgcgtcg | ccctccctcc | ggcgaggctg | 2280 |
| ggcccgccgg | ctccaggcgt | ggctcctcgg | cgggaggtct | tggctctgga | gctgtgagct | 2340 |
| cgggccccag | cgcttggtca | tccagggtga | aaagcgtctc | tctctttggc | aggataaagg | 2400 |
| cgagggggctc | ctgaatggcg | ccgatgttca | catgccctag | gttaccgtac | ttggagagct | 2460 |
| gagtggggagg | aatgcctaac | ccagacgtgg | ggaaagcaaa | atggaaaaca | gttactaata | 2520 |
| aaactcaata | tagaaatttt | aagggaggcg | ggcgcggtgg | ctcacgcctg | taatcccagc | 2580 |
| actttgggag | gccggggagg | ggggggcgga | tcacctgagg | tcaggaattc | gagaccagcc | 2640 |
| tgaccacac | ggagaaatcc | catctctctt | aaaaatacaa | cattagccgg | gctttgctgg | 2700 |
| cgcaggcctg | taatcccagg | tactttggaa | ggctaaggca | ggagaatcgc | ttgaaactag | 2760 |
| gaggtggaga | ttgcagttag | ccgagatcgc | gccatgtcac | tccagcttgg | gccacaagag | 2820 |
| caaaactccg | tctcaaaaaa | aaaaaaaaaa | aaaaaaaaaagg | aaatttaagg | gaaaaaaaac | 2880 |
| gagccattac | tatttttttt | tttgagacag | tctcgtctcg | tcgccccagg | ctggagtgca | 2940 |
| gtggcgtgat | tgctgctcac | tgcaacctct | gcctcccagg | ttcaaacagt | tctcatgcct | 3000 |
| cagcctccgt | ggtagctggg | attacaggcg | ccccggccac | catgccaggc | taatttttgt | 3060 |
| attttttagta | gagacggagt | tactatgttg | gccaggctgg | tctcaaactc | ccaacctcag | 3120 |
| gtgatccatc | cgctcgggcc | tcccaaagtg | ctgggattac | aggcatgagc | cactgcgccc | 3180 |
| agccatcaat | tactatgttt | taatacacga | aaaaccacct | ttgttacagg | gaatgggaag | 3240 |
| ctatactgtg | agcagagaag | taacggaaac | gcagtgtagg | gtgcctgcag | caggaacca | 3300 |
| gcactcaggc | agcaccaggg | aaaaagcaga | ggcgtagccag | gctttgcacg | tgtgatgcac | 3360 |
| tgaccatttg | ccctttggga | agctgtgcct | caaccaagcc | cctctcctac | cacaaaggga | 3420 |
| caaggacgtg | aaagtgaatt | ggaaaaaaga | ctttaggacg | ggcgtggtgg | ctcacgcctg | 3480 |
| tatccgagca | ctttgggagg | ccgagggtgg | cggatcacag | gtcaagagat | agagaccatc | 3540 |
| ctggccaaca | tggtgaaacc | ccgtctctac | taaaacacaa | aaattagctg | ggcgtggtgg | 3600 |
| tgcgagtctg | tagtcccagc | tactcgggag | gctgaggcag | gagaattgct | tgaaccgggg | 3660 |
| aggtggagggt | tgcagtgagc | caagactgtg | ccactgcact | ccagcctggc | aacacagcga | 3720 |
| gactccgcct | caaaaaataa | aaagactgtg | aaaaccattt | ctctagatat | ttcacataaa | 3780 |
| tggaatcata | cgtatgtagt | tcttttgtga | ctggcttctt | ccgcttagcc | agatacagcc | 3840 |
| acataatgta | tgtattccatt | tttatgaaat | gtccagaaga | ggcaaattcta | tggcaacaga | 3900 |
| aagtaggttg | ccaggggacta | aggatgctgt | cgaggaatga | ctacaaacgt | gcatgaagga | 3960 |
| tcttttttgg | gtgatggaaa | tatttctaaa | ttggattcat | atttactaaa | aaacactgac | 4020 |
| ttacacaaat | ggatgaatta | tttagtatgt | gaattacaca | tcagtaaggc | agtttacaga | 4080 |
| attttcattc | tcttacctaa | agtctgtgct | atctgagctg | gtggaaaaaag | gacttggaga | 4140 |
| cagcgattta | aatacggaac | aaggctcttc | aggaagacag | tgcagaactg | gacaaaagagc | 4200 |
| tcttgctccc | cgctcgtgaa | ggcagcctct | tcagcgcgat | ggaaggccag | gattatttta | 4260 |
| gttacctaa | agacaagggc | accgtcaatt | actgggcagc | cctatcacca | cgtggacagc | 4320 |
| agtgcatgaa | actaggcaaa | aaaatgtatg | ccctccaggt | tttcctgaac | aaagtaattt | 4380 |
| aacagtacat | tatttttactg | tctcatttaa | actcagaatt | atggtcattg | tccacaattg | 4440 |
| tgtaacttta | ttaatgtgaa | gttcagaccc | aacttgttac | attacgggta | tagtttccgg | 4500 |
| ttccagtggg | ggagtgtcat | aaaactatag | agagaataca | tggtttttgg | tttttttttt | 4560 |
| tttttttttag | agacaggatt | ttgctctgtc | acctaagctg | gagtgtagcg | gcacaatcag | 4620 |
| ctcactgtag | cttcaaactc | ctgggctcaa | gggatactcc | caccttagcc | tcccaagtag | 4680 |
| ctgggactac | aggcgtgcac | catcacgtct | ggctaagttt | taaaattttt | tgtagagaca | 4740 |
| gggtcttgct | ttggtgccc | ggctggctcg | gagcccttgg | cttcagaaga | tcctctacc | 4800 |
| tcagcctccc | aaagtggttg | cattacaggc | gtggccact | gcgcccggcc | caatacatgg | 4860 |
| ttcttaactt | ccagtgaggga | ccaaccagaa | ctgtgctgga | tccagggaaa | tgaagcaaaa | 4920 |
| ctatacaagc | tttctactaa | gccccgaggt | ttcagaaaagc | tagaaccact | ggaaaactgt | 4980 |
| aagaaaacag | ctaggaaaga | gaagtttcaa | aaccaacaga | gcagcctagc | tgacactaca | 5040 |
| gatatgtggc | atagcgacag | ggtaagaaca | cagactctga | tgctggactt | cccaagttca | 5100 |
| agtgactcac | acctgtaatc | ccacactttg | agggctctgt | gcaggaggat | cacttgagtc | 5160 |
| caggagtttg | agaccagcct | aggcaacata | gggagacact | atctctctgt | aaaaata | |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| gcctatggag | tggaacagcct | ctaggagctg | aggcttcagt | tctgcaattg | caaagaactg | 5460 |
| acccttgcca | acttgcatga | gtctgaaatg | gagccccaac | ctccagatga | ggccatagtc | 5520 |
| cagccaacac | cttgatggca | accctgtaag | accctgagca | gagaggaccc | ggttgtgctg | 5580 |
| tgccctggact | cctgacccac | caaaactgga | aggttaataa | tgtgttgctg | gaagctacta | 5640 |
| agttttgtgga | aattttgttat | gcagcactag | aaagctaata | cgtgtattac | cgaattgtta | 5700 |
| ctataggcaa | atcacttcat | ggactgtcct | aggccccatg | aagggcaact | ggccagagct | 5760 |
| tctcaatcag | gagaacctcc | aaaaccacac | tagacctctc | catgtcagca | gacaccgtca | 5820 |
| aatagacggg | tttattacaa | aaatctggcc | accattacc | agagaaggcc | cagggtagca | 5880 |
| gaaaaccaac | agaatgtgct | caccttggca | aggcatctt | ccaaggcccc | agtcacatcc | 5940 |
| tgcgccaggg | ccacagggca | gcagaggcgc | agatcattga | aggcaaccag | aatattgttg | 6000 |
| agaaagcagg | cgaggggtgg | gaaatctagg | agcaccatgg | gtggctgcag | cgtccccggc | 6060 |
| tggtgtggct | gcacagcagc | aggcatgtta | ctgggtgccca | ggatggctgg | agccgagatg | 6120 |
| agcatgtagg | agttcatttc | ttcctggaat | ttctccactg | tttccctgaat | tgctttctgg | 6180 |
| aaagtgtgta | tggccacccg | ctggaaaaaca | ggagccaact | gaccccggaa | atcagctccc | 6240 |
| accgggctga | aggacagccc | aaagtacatg | cactggccca | gcagagagtc | caggtggccg | 6300 |
| cctatgcccc | ggtaaagggtc | ggtctccagc | acctgcagga | attgtgagac | cttctgtagc | 6360 |
| accagcccat | ggaagatggc | actctcattc | acagtgtgct | cacccatggc | agggggcagc | 6420 |
| agtgggtcct | cgtctgagaa | gatggcacgg | tactgggtga | tgatatcaaa | gagatggaca | 6480 |
| cgggaggcct | cgatggtttt | tgtaatatgg | aaatagggat | catcattagg | aatggcagtc | 6540 |
| aggatggacc | ggagccaagc | atctcggggc | tgaagaaact | tcaccctcaa | ctcagcctca | 6600 |
| gtgaagacgt | ccatgcgcgc | caggtagcca | atgacacgga | ggcaggcagg | aagctggatg | 6660 |
| ttggtcctca | gttgtcggat | cagctggctc | agcatcagct | gcatggactg | gcgcactctg | 6720 |
| ttcacgatgc | cctgacaata | cacagagaga | gtcacactgc | gctgggaagg | atgctctcta | 6780 |
| gaaccatttc | ccctaactct | gaagactgca | gaccaacatt | cccatggctt | tcctgaaatg | 6840 |
| tgaagtaatt | tcctaaagct | gatgcctgta | ggttcaccaa | caaagatcag | gttagttaac | 6900 |
| tctcttgctt | aaaaagctta | aaacctggcc | agggtgcagt | gctcaaacct | gtaatcccag | 6960 |
| caccgtgggc | aggcagggtca | cttgagggtca | ggagtgttag | accaatctgg | ccaacatgtg | 7020 |
| aaacctcgtc | tctactaaaa | atataaaaaat | caggtgggtg | tggtgggtgca | ggcctgtaat | 7080 |
| cccggttact | cggggaggcag | aggcaggaga | atcacttgaa | cccgggagat | aaaggttgca | 7140 |
| gtgagccaag | gtcgcaccac | tgcactccag | cctgggggag | agagcgagac | tctgtctcaa | 7200 |
| aaaaaaaaaa | gaaaaaaa | aaagcttaaa | atcctccagt | gacttcccac | tgcaatcaag | 7260 |
| aaaattccaa | ccacttggtg | ggacttacac | tggtggccct | acctggctct | ccatcttcac | 7320 |
| ctgcttcccta | gtgctctccc | gctgctacaa | tcattaacc | ctggctgcct | ctgtatccct | 7380 |
| taaacacctc | aattttctgcc | cacttcagcc | ctctctactt | gttcttcaca | ctttctgggt | 7440 |
| tgctctctcc | ccagatcttt | gtgggctggc | acctccttct | catttaggtc | tcagcttaaa | 7500 |
| tgttacctcc | ctagaagagt | ccttcttgat | caccctacct | aaagaaacct | accctagact | 7560 |
| cccttaccct | attccctggt | tttttcttca | gacaccacta | tctgaaatga | tatcatttct | 7620 |
| ttgtcaatta | tcagacttcc | cattagcacg | taagctgcac | gagagccagg | accactttat | 7680 |
| tcacactgta | tccccagcat | atagagcagt | gcttggcaca | tgattaatat | gtattttgaa | 7740 |
| taaatgaatg | ttttctgttc | aggcatacct | ggctggcaga | aactgatgtg | aaacatgcaa | 7800 |
| gagtttctac | ctaaagcttc | agtcctgacc | acagaataaa | tgattacaag | aacattactt | 7860 |
| tgagtccctc | ctgggcaagg | tggtctacct | gatgacaggg | atggaagagt | atttctctct | 7920 |
| cagtcggcgt | acgtaggctg | caagctccag | ggcctcttca | taataactgt | tccggacaca | 7980 |
| ggtgtccatg | agctgaggaa | tctccagtat | ttccaaaatt | tctgtgtgcc | gggttagggg | 8040 |
| caggctattc | atccggcggt | tggagctgat | ctcctcggct | tccttcacaa | agttcctagt | 8100 |
| aataatcaga | agaatgttga | tccttcactg | ctctgtacct | aaaccttagc | tacagttacc | 8160 |
| aagtacctgc | tatgaacatt | gggctggatg | atctatctga | tttattcctc | acacccacc | 8220 |
| tataaggtaa | gtattattac | aattgaggaa | atttttaatc | ccagagaggt | taagcaactt | 8280 |
| gtccaaaaac | atacaattaa | taaacttaac | agatggagat | ccagatatgc | cacttgctgg | 8340 |
| ctgtggcaag | gtacttggcc | tctctgaacc | tatttcttca | ttagtataac | ggtatatagg | 8400 |
| gccaggcgca | gtggctcacg | cctgtaatcc | cagcactttg | ggaggctgag | gtgggcggat | 8460 |
| cacttgaggc | caggagttca | agtgaaccc | catctctact | aaaaatacaa | aaaattagcc | 8520 |
| aggcatgggt | gtgcgcgcct | gtagtcacag | ctactcagga | ggctgaggca | ggagaatcac | 8580 |
| ttgaacccag | gaggtggagg | ttgcgggtgag | cagagatggc | gccactgcac | tgcagcctgg | 8640 |
| ccaacaaagc | aagactccgt | ctcaaaaaaa | aaaaaaaaaa | aagtatatag | gaccctcctc | 8700 |
| ataaggggtg | aagaactaaa | tgagatgatg | tgtgtgaagc | atttaacata | gaacttgaaa | 8760 |
| cagagcgaat | gcgtcaaaag | aaaaatagta | aaagagacac | agttaaatat | taacagtag | 8820 |
| ctatcattat | tttcaaaaatg | aagcactaac | tgcctagaat | ccacaatctt | tcccctcagg | 8880 |
| tcttcatctt | ctcctatgct | aatgtttcaac | catagttcct | gccacagtct | actttcaaca | 8940 |
| cttctccata | tttgagagaa | cctgctttat | caagtcccct | atctattctg | gagcatggaa | 9000 |
| gggtacaaaa | gctgctgtca | aatatccaaa | ggctcaaaag | aaaaattaaa | ctttaatcat | 9060 |

| | | | | | | |
|--------------|------------|------------|-------------|-------------|-------------|-------|
| gaaaggctgg | aaggcagaac | tagggataat | ggagacagaa | tatgactcac | aaaggacttt | 9120 |
| tttttttttt | tttgagacgg | agtcttgctc | tgtcaccagg | ctggagtgca | gtggcacgca | 9180 |
| tcactcttggc | tcactgcaac | ctccgcttct | cagggttcaag | taattctcct | gcctcagcct | 9240 |
| cccagtagtagc | tgggactaca | agcgcgtgcc | accacgcccc | gctaattgta | tttttagtag | 9300 |
| acatggggggt | ttcagcatgt | tagccaggat | ggcctcgatc | tcttgacctc | gtgatccgcc | 9360 |
| tgccttggcc | tctcaaagtg | ctgggattac | aggtgtgagc | caccgcaccc | agcctttttt | 9420 |
| tcttttttta | agagagtttc | actttgtcac | ccagtctgga | atgcagtggc | acaatcacag | 9480 |
| cccaccgcag | cctcgacctc | ccaaactgga | gtgcggtggc | acaatcatgg | ctcactgcag | 9540 |
| cctcaatctc | ccgggcccac | ctgaccccc | cacctcaacc | tcctgtgtac | ctgggactac | 9600 |
| aggcgcacgc | caccacgacc | agctaatttt | ttattttata | gagacagggt | tttgccatgt | 9660 |
| tggccaggct | gctctcgaac | tcctgggttc | aagcctcagg | ctcccaaagt | gctgggatta | 9720 |
| caggctgagc | caccacatcc | agccatccaa | atggagagac | tttttgatat | ctgatgcctt | 9780 |
| caaatgcbag | gatttctctg | tcaccttccc | gtcaatggaa | gttttgaagc | agatgacctc | 9840 |
| cgggtccacgc | tttcgtataa | aataagtata | taaatgtgca | catatatcca | gctcacacct | 9900 |
| ataatgttaa | ctgtgtcaga | cccataata | agagctttgc | atgaatcctt | tttctttgtg | 9960 |
| cccacaactg | cccttcgagg | gagggacgtg | cttctgggta | accagtctctg | aattcgaaac | 10020 |
| ctcctagctg | tgctcttggg | cgtcactaat | ctctgtcttg | acttgctcat | atgtaaaatg | 10080 |
| gaaataacag | ggctggggcg | agtggattat | gcctgtaatc | ccagcgcttt | gggaggccga | 10140 |
| ggcggacaga | tcacgacatc | aaaagatcga | gaccatcccc | gccaacatgc | tgaaacccccg | 10200 |
| tctctactaa | aaatccaaaa | aaattagctg | ggcgtgggtg | cgcgcgccta | tggtccctgc | 10260 |
| tactcaggag | gctgaggcag | gagaatcgct | tgaaccacag | aggcagaggt | aggttgacgc | 10320 |
| gagccgagat | ctcgccactg | cactccagcc | tggcgacagg | gcgagactcc | gtctcaaaaa | 10380 |
| agataaaaaa | ggaataacag | tacctatctc | gaaggctgtt | gtgaggttta | aatggattaa | 10440 |
| taaagcgctc | agcagagaac | ctggaacgtg | gtaaacgctt | tatgtgttag | ttattttctac | 10500 |
| catcgtaaat | gtcagctttt | acagttataa | aaccctttta | gcgccaggcg | cgctcgacct | 10560 |
| gcagctctgc | tggagctggg | gcaaacggtc | gagcaggcgg | ccgagcgacg | cctccacgtc | 10620 |
| gccaacacag | cggtggatgc | gctcggtgca | ctcggcgccg | cgatgaagg | tcttgtagtt | 10680 |
| agcgaaggcc | aagtcgcgcg | tctgctgcag | cagctgcgcc | cgctcctccg | ccaggcgctc | 10740 |
| gggctcgcgc | cgcagccgct | ccagccccga | gccgctcaac | tcccggaggt | agcggcccac | 10800 |
| atcggggccgc | tcgcgccact | gggcctcggg | gaagcgggcc | cggaacagcg | acgccaggag | 10860 |
| cccttcaccc | tccacctcgc | cgagagccgc | tgctgtggcc | gtggctaccg | atgggatagt | 10920 |
| cgccgcgggc | gccatcttcc | | | | | 10940 |

<210> 12143
 <211> 397
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 12143 | | | | | | |
| gaactttttc | actgttatga | ttttattgcc | atttttgcttt | tttagatgtg | tgcagcagac | 60 |
| taaaacatta | atgagataat | tgattttttg | cccataacat | tacaaagctg | attcgactaa | 120 |
| gccccagaag | aaaacagcca | gggtgctata | gtcaccttag | cttagcatct | tggcttcttt | 180 |
| gtatctgtag | ttgttggaac | attgaagaga | cgcttcaaga | aatacagttg | caggatccca | 240 |
| gaaagaataa | taacaaggct | ctgggctgtc | gaccaccagt | tcacgtagtt | atagtttgat | 300 |
| tggataagga | aaaagtcagc | catttttctc | atccgggcaa | agttgtagta | tcgccacatg | 360 |
| tgaagatat | tgttctgcac | cttttgtgtg | cgtcct | | | 397 |

<210> 12144
 <211> 3738
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|-----|
| <400> 12144 | | | | | | |
| gaagtgaag | gtgacaacgt | gctggcagcc | ctcgtctact | ctcagcgctt | tctctgcctc | 60 |
| ggcgtccggt | ctggccatgc | ttgaggagcc | cttcagccct | ccactgcgct | gtggggggccc | 120 |
| ctctctgggc | tggccaggcc | cggagccggc | tccctctgct | tgcaggaggg | tgtggaggga | 180 |
| gaggccaggc | gggaactggg | gctgcgcaca | gcgatggcag | gccagcatgt | gttccgagtg | 240 |
| ggagtgggct | cagtggcact | cggagcagct | ggccagcgct | gctggggcct | ggcagtgagg | 300 |
| ggcttagcac | ccggggccagc | agctgcggag | ggggcgccgg | gtacccacagc | actgccggcc | 360 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| tgcctgcccc | acgctcgaat | tctcgcagcg | cctcagccgc | ctccccgcgc | ggcagggcta | 420 |
| gggacctgca | gcccgccttg | cctgagtgcca | cccgcgggtgg | gctcccagcg | gccaagcctc | 480 |
| cctgacgaga | gccgccccctg | ctccgcagca | ccaggtccca | ttgaccaccc | aaggactgag | 540 |
| gagtgcaggc | gctcggcaca | ggacttggca | ggcagctcca | tccgctatct | caagggaaaa | 600 |
| aaaattaaat | agccaaatcc | ccaaacaagt | taattttagc | taggattaag | gaggtcctct | 660 |
| ctgctttaat | ctttacaagg | aaagcaactg | aaaagaacaa | tccacattct | gttctctgtt | 720 |
| tctgctttcc | ccagccctta | ttctttctat | aaagccaacc | tcctctgctt | agctctatgg | 780 |
| aacactcatt | ctatttttaa | gaatgaggtg | ttgtccgatt | ataaatcaca | aaagctaatt | 840 |
| aagatgttta | actaaatttg | atataatttt | ttttttgtct | tttgacagcc | cttcctctga | 900 |
| cgtgcacagg | atatgaaaat | gtctgatagt | gttgtggctg | cagtgcagcc | tgggagtgcc | 960 |
| agttttcttt | actgcagttg | tctgtccaaa | gcgaagtga | ctagcaagtc | tcttacaaaa | 1020 |
| gggcaagctc | tgaactgcgc | acagtgtgag | cacagacaca | gtgggggcta | tctacagggg | 1080 |
| cagtgttagc | agcaatgggt | tgtccaagat | ttctgagagg | attagcacct | agaaaaataat | 1140 |
| cttattttgc | tttgtgggtg | cagacaaagg | aactgaatga | gaaaattatt | gaagggcata | 1200 |
| ttgtagctga | tatgcagatc | caaggctgac | tttcttcctc | tcccttgaat | ccacttatca | 1260 |
| caaaaatatg | gaatgagcag | aacttatggg | cataaccata | aaccaatttt | cctttgtttc | 1320 |
| ctactgtctc | tttaaagtgt | tctcagtggg | agaaatcttc | tgtgtccttg | gatgaagact | 1380 |
| tactcagtaa | attactttat | gatcactgat | aggtaataaa | agatcctatg | gtcattttaa | 1440 |
| aataaaccat | agaattttta | ttcagaaaat | attatcctag | ttccatataa | taatctagac | 1500 |
| tccaaacttg | atttaaagggt | aaattttctc | taccttccta | agttagagct | tcctgcagtc | 1560 |
| tttccctttc | atctctcctc | ctgcctacta | acctgttttc | tgacctgtta | cattttattt | 1620 |
| gccctgataa | attgggtgaa | caggggtgatt | actaagcagc | tgcttcaact | tgtcagagga | 1680 |
| cagttgacca | gcctgggtct | caccctttgt | attccctgtc | atacctcaat | ccactttgtt | 1740 |
| tctccatttg | tagatgggtac | ttatgtctatt | ggagtccccc | tgacgttctc | tctcttgact | 1800 |
| tgagatgaag | ggaatacacc | ttatacattg | cacctctact | tccatcccac | tagcagcttt | 1860 |
| ctacaaataa | gtcttgtcta | aataagtttc | ctctgatgcc | ccacaaccac | attctttttt | 1920 |
| attctcaagg | tcaatgaggg | gtatagtga | acctgacaca | taactgggtt | ttgggtattt | 1980 |
| tcttggaata | tttttcattt | ttgtttaaca | cctcacttga | gtacctggct | aatcaaaatg | 2040 |
| tggggcccg | atggggcagca | ttggcatcac | ctgggagctt | gttagaaaag | ctcaggcccc | 2100 |
| agcccgagcc | tacaaaatca | aaatctgcat | tttagggagc | tctccaggtg | attcgcatgc | 2160 |
| acattacatt | ttgagaagcc | ctgcttttga | agtcctttca | actgtttctt | ggtgtctcaa | 2220 |
| tcttccattt | tactttcctg | ttacacattt | agagtccaat | gtcctaattg | agctttgtgg | 2280 |
| gttctatttt | cagaaaaggag | gagtgccagt | gtctgtcctt | tgcaattgca | gatctcaaac | 2340 |
| tatttataaa | cctattaata | acttaaattg | ctttttactg | aattcaaattg | ttctattgtc | 2400 |
| acatcaagtt | cagtatatcc | tacgtcaaatt | ccagcatttt | cccccaaattc | cgacacctat | 2460 |
| tctaactcct | tttaccattt | ctttgatatt | taataatgga | cagtcttctc | caagactatt | 2520 |
| tccttgacca | ctgaagcaca | gggtgatcac | tcaactcttg | taccgtgcca | gccttttagca | 2580 |
| cttatgacag | cctctttttt | atttatgttt | atactggctt | gaactaacat | ttattttttc | 2640 |
| attcattcag | catttctttg | gcactttcta | tgttccaacc | aatgttttaa | cagctgttaa | 2700 |
| agaacaaaac | aaattagtct | tctgtcctct | tgaagtttac | attttcaggg | ggagaaaagat | 2760 |
| acaaaaaata | gataaatatg | taatttcata | ccacaatgac | ggctttcaaa | ttgataatgt | 2820 |
| caggctcaac | ctctcctttt | aattgttaatt | catgtaacca | gtgtctgtct | aatatcttta | 2880 |
| cttaaatatc | tagtatgcac | ctcaaactta | ctgtatccaa | aaccgaattc | ttgattttca | 2940 |
| cttcaacacc | ctcttttctc | aatgtctctc | atctcaatgt | acaacatcac | catctccaca | 3000 |
| aaaatcctct | ttctttcata | ccccactttt | aatccatcag | aaaatcccta | taattctact | 3060 |
| ttcaaaacat | acccaaatta | ttgctacttc | tctccacttc | ctctgcaaca | gctctgtgga | 3120 |
| ggtctccaat | gtctcctctg | gactgctata | ccagccacct | gacagccatc | ctgcctccct | 3180 |
| catccctcta | ctacagtacg | tactctacca | gtactctgag | ccatctttca | cagagttagt | 3240 |
| ttgagcattc | cctagctcaa | aactctccca | ttgcttctcg | ttgcactgag | aattaaatct | 3300 |
| aaagacttca | cagagtccct | caaggcccta | cagactcttg | gtccccatgc | tgccccctctg | 3360 |
| actcacctcc | tcctaccac | tcttgcttcc | ctttctctac | cccgtcactt | tggccccactt | 3420 |
| gatgttcttt | gaacacacac | atctggctat | ctccccaagt | ctttgcaatt | gcttaaacca | 3480 |
| ctcttcccag | ataccagaa | gacttgcttt | ctcattttct | taaattatct | ctgtattcaa | 3540 |
| atatcacccc | ctcaagaggt | ctatcctgac | tttctctctc | accttctcct | tttcttttatg | 3600 |
| atatttagcc | ataattcgcc | ccccatacac | atgcatttgt | ttattcatct | gttggtttat | 3660 |
| tgtctgtctc | ctcactaaaa | tgtaatatt | ccaaaatgta | atttccacaa | tagcaataaa | 3720 |
| tttatctttt | tatttttaa | | | | | 3738 |

<210> 12145

<211> 309

<212> DNA
<213> Homo sapiens

<400> 12145
 tttgtgtttt ttttgttttt gttttttgag acggagtctc gctctgttgc ccagggtgga 60
 gtgcagtggc gcgatttcag ctcaactgcaa cctccacctc ctgggttcaa gcgattctcc 120
 tacctcagcc tcccagtag ctgggactac aagtgtccac caccactccc ggctaatttc 180
 tttttgtatt tttaggagag gcggggtttc accgtgttag ccaggatggt ctcgatctcc 240
 tgacctcgtg atccacccgc ctccggcctcc caaagtgtcg ggattacagg cgtgagccac 300
 ggtgcctgg 309

<210> 12146
<211> 1361
<212> DNA
<213> Homo sapiens

<400> 12146
 ccgtcggact gcggccgccc ttggctcaac tgggtcgccg accttgttga ggggcgacca 60
 ctgcggggag accgagagcc tgcggctggc gtttgaggcg gatggcagtg ccctgagcgc 120
 ggccggctggg tctcgggtgac actgacgacg ggaggcgccg tcggaagagc gcggggccgt 180
 cgccctctggc ttaacatagc agatgcgctg agactccaac aggtggctcc gtggcgcaat 240
 ggatagcgca ttggacttct agaggctgaa ggcatcctaaa gggtccgggt tcgagtcctcg 300
 gcggagtcgt aacgcttttt tccctccccc ctacaattta ttttctgcct ccatcatgtc 360
 tcttattttt tttttttgct aaacgggttta acttctctct cattccctgc tctcgagtt 420
 cactgcattc gggtcttgcg gtcttttctt aagcggctcg cagggtcccg agcccctcag 480
 ctccccgggc ctccgtggcc cagggccccag ctccagccgac tgggcagtcg atgtaggctc 540
 tgagaagagc ggccggcgccg gcggcgcccg cggcgaagga aaagcgacac tgaagcgaag 600
 gctcgcgggt tcggcctaaa ggaaagtgcg ggggaggccc gggtctcggg tgacaccccc 660
 acgccttgag cgggactgtg gttgcgaggg agggacgaga aaacacgcct acgccctgcg 720
 tgcgctgtgc tgactacctc tccagcatgg aggcctccag atgagcagac acccgaatcc 780
 cagcgggagc ccgtcaaaaaa tggagatttc tgccgtcact ctgggactct taattcggtc 840
 cgtctggggg ggggccccag aatctgcatt tctgataagg tcacccgctc cctccccc 900
 ttattccagt gcaaagaggt cctaggccca gtgccatca gtcctcaag acaggaatta 960
 ctatatcttt ttctgacaac tgtaacttt gtacaagggt agcaaataaa tccaggaatg 1020
 aatggaatct taaaactcgt aaaacaacaa tgaaaggtaa ttcacacaaa agatacaaaa 1080
 tccaaaattg tcaaaaaaga tacagggaag agtaaaccat catgtttatt ctatagtcca 1140
 gccttgcaat tctctccaca agccattagt ggtaatgggt tcttggaat attttcagat 1200
 ttattttatg cccatatcag catttttaac atcttttgtc ataaatatgt cgtaaataac 1260
 aatgttattg atacatatcc ttttaaaaac acaatggtag tatgctatac tggcttgttt 1320
 tacttatgaa tatatgtaga gctgcctcgt tccattgtac g 1361

<210> 12147
<211> 372
<212> DNA
<213> Homo sapiens

<400> 12147
 aaaagacagc tgggcctgcg ggaccactac caccaagatg cggagaccag tagtggcccc 60
 aaatgccagg ctgcgctgat atttattgga tacaagacaa agggacaggg taaggagtgt 120
 gagccatctc caatgatagg taaggtcaca tgggtcacgt gtccactgga cagggggccc 180
 ttccctgcct ggaagccgag gcagagagag agggagagag gagacagctt gtgccattat 240
 ttctgcatat cagagacttt tagtactctc agtaatttgc tactgctatc taaaaggcag 300
 agtcagggtg acaggatgga acatgaaagc agactaggag cgtgaccagt gaagcacagc 360
 atcacaggga ga 372

<210> 12148
<211> 403
<212> DNA

<213> Homo sapiens

<400> 12148

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| ctgactcaga | agtctgggtg | gttctgtcag | cattcatgaa | accgtgaaag | ctaacgtgtt | 60 |
| agtttgcaaa | cataacaaaa | tatgattcat | cacagttctc | cacgctcact | agctgggcgt | 120 |
| ccctacacga | gttttttaac | ctctcttagc | tgcagtttcc | cttctttata | ttataaaggg | 180 |
| gacgggtggtg | tgtatgtacc | cgccccatag | cttcgtcttg | gggttaagta | agactgtaaa | 240 |
| atccctacca | cactggactc | ttcccaggac | ttccctttcc | ctctttgaac | tctgccagag | 300 |
| actattctgc | atttgaggcc | tggcgatgct | gggcaggggc | gggtatgggt | gaagcacagg | 360 |
| gtgggccgcg | gctggcgggt | ttggtgcaga | aacgggctgt | ggc | | 403 |

<210> 12149

<211> 1098

<212> DNA

<213> Homo sapiens

<400> 12149

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|------|
| ctgacgcgat | atgcctctcc | tgcgtgggcg | ctgtcctgcc | cgccgccact | accgccgctt | 60 |
| ggccctgctc | ggcctgcagc | ccgctccccg | cttcgcccac | tcggggcccc | cgcgccagcg | 120 |
| gcccctgtct | gccgcggtga | gttgaggccc | agccatcatg | gtgggcggga | agcgcggtgc | 180 |
| cctggcgggg | cgccccgacg | ggtggggaga | agggaggaca | cgccgtgcag | gcctcgcggtg | 240 |
| ggaggctctt | gtggcttggg | cgccgttggg | ggaggttcct | gtggcttggg | cgcccttggg | 300 |
| ggaggttcct | gggagagggg | cgccgtgagg | atgccgtcgt | cgggcacagg | ggcggaagc | 360 |
| ccgggaccct | gaggaacgcg | cggggattgg | gcctccttcg | ttgttaccct | ttaccggcac | 420 |
| ctggctcggg | ggcggggctg | tggtttcgcg | gaggaatgat | ttaccatcct | cggacgtcct | 480 |
| cggcactgcg | aagatctagc | gttttcgata | aaatgggtgga | aatcctgggc | cacatcgaag | 540 |
| ttccagagtg | cgaagggttg | aaccggagac | cccttagatg | aaaaatgaat | taaaaaaaaa | 600 |
| aatcaggtga | tccatgaatc | gattttcagc | atttttagatt | tcactaggcg | cctgtttcta | 660 |
| ggacaacggg | ctaggtgctc | aaaatgtttt | ttttaagcac | tttttgtag | gcagcaagtc | 720 |
| actggcctag | gaagccatac | tcagcagcgc | gtgtcatctt | ctcttccagg | aaatggctgt | 780 |
| tggacttggt | gtgtttttta | cgaccttctt | aacaccagct | gcataatgtg | taggcaacct | 840 |
| gaagcagttc | agaaggaatt | agatggaaga | tgatgttgaa | cagctgttaa | cgtccaaaaa | 900 |
| actttcagaa | aaagctgtgt | ttttgttaac | gagcaaaatt | gcctagttga | gttgatgcaa | 960 |
| ccattgtggg | attcactttc | ctcatgttta | tgatgaatat | tttgactttt | tttagtactg | 1020 |
| tgcattatat | agatgtatag | tcaaaaatgt | tctgcttaag | tgtaaataa | aacggaaaca | 1080 |
| cttattcgtg | cttggttaa | | | | | 1098 |

<210> 12150

<211> 1098

<212> DNA

<213> Homo sapiens

<400> 12150

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| ctgacgcgat | atgcctctcc | tgcgtgggcg | ctgtcctgcc | cgccgccact | accgccgctt | 60 |
| ggccctgctc | ggcctgcagc | ccgctccccg | cttcgcccac | tcggggcccc | cgcgccagcg | 120 |
| gcccctgtct | gccgcggtga | gttgaggccc | agccatcatg | gtgggcggga | agcgcggtgc | 180 |
| cctggcgggg | cgccccgacg | ggtggggaga | agggaggaca | cgccgtgcag | gcctcgcggtg | 240 |
| ggaggctctt | gtggcttggg | cgccgttggg | ggaggttcct | gtggcttggg | cgcccttggg | 300 |
| ggaggttcct | gggagagggg | cgccgtgagg | atgccgtcgt | cgggcacagg | ggcggaagc | 360 |
| ccgggaccct | gaggaacgcg | cggggattgg | gcctccttcg | ttgttaccct | ttaccggcac | 420 |
| ctggctcggg | ggcggggctg | tggtttcgcg | gaggaatgat | ttaccatcct | cggacgtcct | 480 |
| cggcactgcg | aagatctagc | gttttcgata | aaatgggtgga | aatcctgggc | cacatcgaag | 540 |
| ttccagagtg | cgaagggttg | aaccggagac | cccttagatg | aaaaatgaat | taaaaaaaaa | 600 |
| aatcaggtga | tccatgaatc | gattttcagc | atttttagatt | tcactaggcg | cctgtttcta | 660 |
| ggacaacggg | ctaggtgctc | aaaatgtttt | ttttaagcac | tttttgtag | gcagcaagtc | 720 |
| actggcctag | gaagccatac | tcagcagcgc | gtgtcatctt | ctcttccagg | aaatggctgt | 780 |
| tggacttggt | gtgtttttta | cgaccttctt | aacaccagct | gcataatgtg | taggcaacct | 840 |
| gaagcagttc | agaaggaatt | agatggaaga | tgatgttgaa | cagctgttaa | cgtccaaaaa | 900 |
| actttcagaa | aaagctgtgt | ttttgttaac | gagcaaaatt | gcctagttga | gttgatgcaa | 960 |

<210> 12154
<211> 410
<212> DNA
<213> Homo sapiens

<400> 12154
actatatggg agtgaatgta tctagtgaca tcacccttaa aagattagat gtgtagctgt 60
gaggttaataa aagtttagct aaatgggttt tatgttctat tagtactgcc atgccacact 120
tcacaatttg ctgtgagaag tacaaccatt tctttgcctc tttaaagtac tacacctcag 180
aatgtgaaga atgagtacat ctcttatttt aatgatttta ttatcttctc ttagtcttct 240
gtgaggtttg aagaatcata cacatctttg aactgtctta gctgttgatg atgctgttat 300
catgggcaac atagttcaac tctgagtctt ggtttcctta tctctgtaat ggggacttaa 360
aattgctgtc ttgaagtgat gttgtggaaa taaaacattg aacaaagaaa 410

<210> 12155
<211> 4082
<212> DNA
<213> Homo sapiens

<400> 12155
aaagactcga acagacatgc gagacctcta ccaactgaag gtttcgtgag cgcactcctt 60
tgccaagatc ttggtgaata gtctttcact gtgcaatttt atcttagaaa ttgttttacg 120
tttgatcatg attgtgcttg gctggatgtt ttttggtgga cttgtgtgtt acatgggcac 180
gtttccagag ttgatggtaa gtaatggctc tgcctgtaaa tccctgggtg tcagtcctgt 240
gctggctcat ctctctgtct ggggttttctg accaaatggg aaagatagtt gaggtctcac 300
cactaactgg aagtcagaat gtgatgggaa caaagttagt gtcccaggct accgggctac 360
tccccatccc actagggaca tcctttttta ttttttattt attattatta ttattttttg 420
agatggagtt ttgctcttgt tgcacaggct ggagtgcaat gcgcgatct cggctcactg 480
caacctccgc ctctcaggct caagcgatct tcctgcctca gcctcctgag cagctgggat 540
tacaggcatg caccaccacg cctggcgaaat tttgtgtttt tagtagaaac aggggtttctc 600
catgttggtc aggtctggtc caaagtctct acctcagggt atccaccac ctcggcctcc 660
caaagtgtct ggattacagg catgagccac cacgcctggc tggggacatc cttttttttt 720
tttttttttt ttttttggag acggagtctt gctctgtctc ccaggctgga atgcagtggg 780
gcgatctcgg ctactgcaa gctctgcctc ctgggttcat gccattctcc tgcctcagcc 840
tcccagatg ctgggactac aggtctcccac caccatgctt ggctaatttt tggatttttt 900
agtaaagacg ggggtttcact gtgttagcca ggatgggtta gatctcctaa ctctcgtgac 960
cgcctgcctc ggctcccca aagtctggga ttacaggcgt gagccactgc gcccgggcag 1020
gacatccttt taagtctttt tttgtttccc cctcccttgc atatatagct gtacttggtt 1080
caaagcacta tggaaatttg aaggggtctg ctggagaccg tatttgactt gcggattgca 1140
ggccaagtgg atcagtgggt atttgtagga agggggacgg tagggattgg tgggaccttt 1200
tagcagccct tctggtcacc acacagagtg gttaccact gggccaatga gtacagccat 1260
ctctgccctc aaattttctt tttgattcag cctccaactc taaagtggca ggaaagggtg 1320
cctgttcagg agagcaaaac acaactgagg aggcgggctt taggtgaaga tttgctgcag 1380
taagtgggtg gtcaggtttg gtgggttggg ttctctcctt tccaaagtac ttggtagcac 1440
ctgaagtttt cagtggagaa tgtttattcc tttggaaaat ataataaact gtggaagggg 1500
aaatgatttg gtgagtactg ctgaggacag caggccaaaag ttgtctatta ataaccatgt 1560
ctcatagggt ttgttttgaa gactgttccc atctattatt tttctcctca caacctgta 1620
atatattata ctattaaaag cattcttttt tttttttttt tttctgaaac aggtcttgct 1680
ctgccacca ggctggagtg aggtgcaagc agtcttccca tctcagcttc ttgggtagct 1740
gatcctcagg cacatgccac catgcctggc taattttttt tttatttttt tagagacaag 1800
gtgtcactat gttgcccagg cagggtcttga actccaggcc tcaagtggct cccagcctt 1860
ggcctcccag agtgctggga ttgcaggcat aaaccaccgt gccttgccag gaccagcatt 1920
tttaacgtcc cttttggcag atactgaaac tggagttaac attgaacttg ggttttaggtc 1980
ctaactttgt gactttctag ctacgtgacc ttgggaaagt ttaattagtt tctttgaact 2040
tcagtttcga agtttcttct gtacaacagg agatatacct atttttgtga agattatatt 2100
tggaatttaa tgtaaagcat ttaatgcaaa gctcaaaaat tagcatttag taaaatacta 2160
acttaacaac aagcaataa tgaaccagtc aacaaagatt tactgggtgac agtgacctca 2220
actatttacc tgaggccaca cacagtagct cgttggtaaa ggtgggatgc gagcacattt 2280
ctctgtctct ggacttcata gcctcccata ctcatccac tagaccagcc tgcctacagg 2340

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|------|
| aaacactaat | ggcagtgccc | ttagcagacc | agctcctggg | tttcttaacg | tttcacccca | 2400 |
| tttcattcag | acctgttttt | tttcagagct | gtgcctattg | ttagagaaac | ttaactcgga | 2460 |
| gagttttaat | aataactga | ttacaggagc | agaaggtttt | ttggaagcta | ctccagaagt | 2520 |
| taggggtgtt | tagccccagc | cccagggtata | ctaagagcag | gacttgatgg | ttgggggttt | 2580 |
| tatctccatc | tgccccagga | tttctgtgaa | tgcattagcc | caaagcagtc | agaactttgt | 2640 |
| ggcagtcctg | accagaccac | ttaactatatt | ctgtgcctca | ctttctccag | ctgcgaaatg | 2700 |
| agtaaacaga | cagcccatct | tcctttctctt | ccctttctcag | gaaagttgta | aatagggtca | 2760 |
| ccctacatgt | taagagttta | actgtaccat | tttataaaat | gaaagatttc | ttttttgaac | 2820 |
| agcctaacaa | tagcatatta | agttattttgc | tcatggcata | cctagccagc | taattctctt | 2880 |
| aatgaatcca | ggcttttttt | cttttgcata | gcattctgatt | gcacaaagcc | aatagttaaa | 2940 |
| cattttggca | ggtgacgagt | taatgagtat | actgccagct | aggtccaaat | cacagacaca | 3000 |
| ccagagcaca | gggccctttt | gataaatattt | ctttaaccca | acgcattctag | caccctggcc | 3060 |
| aaccatccca | taggtgtctca | tgctgactgg | gttgccaagg | ttacaggagc | tgatatcata | 3120 |
| attggtgtct | gagctctgcc | cccctaaatg | gccatgagga | gccacttcaa | ttcagactag | 3180 |
| gccacgaagc | tccttagtga | ggagctgcca | tgctgggcca | tccaccatct | ggattcctac | 3240 |
| gactcagggg | atagaacact | gcaccttcca | gaagcacttg | tttcttctgt | ggtacaccac | 3300 |
| cagctgagaa | agaagcctca | tgatgattgt | tgtcttatgg | atgcttctca | ttgcaggaa | 3360 |
| catgtggaag | ggatataaat | atcccccagg | aggggtaagt | gtaccttcaa | ctttgttctc | 3420 |
| tattcctact | ttgaaatgta | ttcccgcccc | caaaacaaac | taagtatgaa | aatccaactc | 3480 |
| tagtaacatt | agaacaaaat | actttttatta | tttttttaaa | gttactgtag | ctgttgggag | 3540 |
| ggttcccat | ttcttttcacg | tgatctttta | ggcccagagt | caaagctttc | tgagttgggc | 3600 |
| agtcttgtct | ctgttgtgtct | aatggacatt | ttgtatgccc | agtctttgat | gccatttcct | 3660 |
| aaggatcagt | ccacttcaga | aatccaaaact | tctctcttcc | acaagtaaac | actagtctgt | 3720 |
| aaaagggatc | tggtggcaga | tgtctctttt | ctctctcctc | ctgctagacc | ttggaatttc | 3780 |
| tgtcttttct | ctgcctcttg | tcagctcccc | agtgctaagc | tccccttgca | tccgggatca | 3840 |
| gaggcattag | gtgagacaga | attggaggta | acctcccctg | ccagtccttg | cctgggaggc | 3900 |
| caaatgccta | agccccacac | ctagaaacca | ctaggcctgc | atgacacaca | ctttcttttt | 3960 |
| tccccacag | actccagtg | aagtaagcaa | ggatgatcct | ggtgaagtaa | tgcagctgtg | 4020 |
| aagctcacct | gaccagctgt | acagttcctg | ttgttggttt | cacataaagt | aattgcacat | 4080 |
| ta | | | | | | 4082 |

<210> 12156
 <211> 570
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 12156 | | | | | | |
| cgggtggatc | acctgaggtc | aggagttcga | gaccagcctg | gccaacatgg | tgaaacacca | 60 |
| tctctactaa | aaatacaaaa | attagccagg | cgtgggtggc | ggtgcctcta | atcccagcta | 120 |
| cttggggagg | tgaggcagga | gaatcacttg | agcccaggag | gcggagggtg | cagtgaagctg | 180 |
| agattgcacc | actgcactcc | agcctgggag | acagagcaag | actctgtctc | aaaaaaaaaa | 240 |
| aaattgtaga | gatgaaaaat | acattaaatg | tccatgatgt | tgtagcagaa | aagcaaaaaa | 300 |
| tatcttttgt | gacctctgag | aggggtgtct | atagtggggg | ggggctagaa | gtcagaatgt | 360 |
| aatgcatgga | agaggcgtag | attggaaaaa | gctttgagta | tggaccactt | gttttaggaag | 420 |
| tttggtcata | aaaggaaatt | aagaaataag | acagggaagg | agccacagta | tcattctggaa | 480 |
| gtttttttga | ggaaaggaca | ggggtacctg | tggcttcatg | atggccaaga | aaagagaatc | 540 |
| aatggagagg | aactaatcca | aggtgatgaa | | | | 570 |

<210> 12157
 <211> 322
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12157 | | | | | | |
| aagaagttac | cgcacctttt | tttttttttt | tttttttttt | ttgagacaga | gtctcgctgt | 60 |
| gtcgcccagg | ctggagtgca | gtggcgcgat | ctcggtcac | tgcaagctcc | gcctccccgg | 120 |
| ttcatgccat | tccccctgct | cagcctccag | agtagctggg | actacaggcg | cctgccacca | 180 |
| cgcttggtta | ttttttttgt | tttttagtag | agacgggggt | tcaccgtgtt | atccaggatg | 240 |
| gtctcgatct | cctgacctca | tgatctgccc | gcctcggcct | cccaaagtgc | tgggattaca | 300 |

ggcgtgagcc aatgtgcccc gc

322

<210> 12158

<211> 3725

<212> DNA

<213> Homo sapiens

<400> 12158

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| caacaagagg | accctaacat | tttctggagg | tggaaatcaat | gttgtatgat | tctaatagaga | 60 |
| tacgtgattg | tcaagagcct | agtgtgctat | ctaagggtcta | gcagtcactt | cactagtggg | 120 |
| cagagacaag | ttctaattgt | attacagcac | aaacaaaact | gactagtttt | taaattgcac | 180 |
| aatttttttt | ttttaaaagca | agaatcattt | tctggggtatg | taagtgtaaa | tgtagatgca | 240 |
| aatttggctg | cacctcttta | tcatgcctgt | attggcctat | aggctctgcac | tttagtggtt | 300 |
| tttaattgtt | ttattttctgt | gtattttacga | acagagaaaat | aacccaaata | ttattttctgc | 360 |
| ttagtgtctt | tattttataaa | gccccatgagt | agtttgtatg | catctttcct | acttgtaaag | 420 |
| atgagtaaaa | gtatgcagtt | ttaaatttat | aatattattg | gatgttcttt | gctttggtag | 480 |
| tctttccaga | aaggataaac | agtgggtttt | gttttggttt | gttttattgt | ttaagtggga | 540 |
| ccacttagct | tcccgtttcc | ttactagtta | agaacagac | attaattttc | agttgaatgt | 600 |
| atttttgcag | gcacatatt | gttacagggc | catttacacc | tattcacaaa | gcttaaattcc | 660 |
| taccttgtgg | gactgaagtg | ctcttaatat | aactgtttat | tttactgtg | taatatgcaa | 720 |
| agcaaaaggg | aaattattttg | gtggatggta | gctcaaaaat | ggaactcttg | ttctaattca | 780 |
| gtttacattg | ctttaccctc | cttagatttt | tcatcaaagg | gctgtcccc | tgcaatctta | 840 |
| ctaaaacatt | ttgttaaaat | aaactctttt | cctttttata | ttataaatta | ggctttttaa | 900 |
| taaagatgtt | attcctttta | aatgggtggc | ttaccatcat | tgaagatgtc | actcaggtgg | 960 |
| ccttgtttga | tcaaaacgcc | ttttttaaaa | accaagcttt | aaaaacatgt | ttataatttc | 1020 |
| atgaagtaca | tatatattgt | tcccatagtc | ttcagcttta | aaactataaa | tatgccccaa | 1080 |
| ttttgttatt | tgccctactt | taagtagggt | tatttgtgtt | gttttttcag | tacttggttt | 1140 |
| tctctgataa | gactcaggaa | ttctgaaatg | tgaaattgtc | tcaattcttt | ctcttgtagc | 1200 |
| atgaatcaaa | tgtattttatt | aatagcactt | atgactatag | aatataattt | ggcatatgat | 1260 |
| tcatattaca | tatgtattcg | ttttattttt | aaaatagttt | ataaacttaa | tgattttttt | 1320 |
| ttacaaatga | ggttatagat | attaattgcaa | attttctggg | aggatatctc | ttttttgcta | 1380 |
| tgatgattcc | aacttatcag | agacctccca | tttgcccttt | cattacggtg | aaagctttgc | 1440 |
| cctcatctac | taaagtacaa | aggaattctt | tggaaagcaga | ttatttctagt | cttatgctag | 1500 |
| agatgaattt | gatcatttta | atgtgtgac | tttttgctct | atcagggtata | attgttttcc | 1560 |
| tttcctttat | aatgggtaag | ttttctcacc | tttgagtaac | agtaaagttc | atttatatgt | 1620 |
| ccatacctag | aagaccagtg | caaatacttt | gagagcacct | gggtctacag | gacataattg | 1680 |
| gcactctaat | cctcatttct | tgctatttag | aggaaaacag | atatagtatt | gtaataccct | 1740 |
| tattcttttt | gaactcctaa | tactcatttc | ggtttttttt | ctctcttttg | aatctagttg | 1800 |
| ctgggttttc | tttaattgatt | ttagtttaac | aatcccaacc | aacaatacat | ttgattttatt | 1860 |
| tttttctgtc | taacctgaca | acctttttct | tgtgcttctt | gtttgttggt | tagtttttgt | 1920 |
| gaaaggaatc | attgttttaag | atcactgttt | tcatacttgt | tttaccttc | acgtattttg | 1980 |
| aagtacattt | atttactaag | catttgtgac | ttgaataatt | tcaccaaag | aatacatttt | 2040 |
| ggtagtttgt | aatgagttct | tctaattgtt | acactttgct | tggtacttaa | caataaaatat | 2100 |
| gtaaaggtaa | aagaaataat | tttctgtatt | ctgccaatct | taattttata | taataaatca | 2160 |
| tccatttttt | tcttaaaata | gtatggattg | actgtttcta | aaataccaat | ctgtggctgt | 2220 |
| ggtttttctt | ttcttcagca | tttccagcat | ccaagtaaac | aatagtcctt | tatagtcctg | 2280 |
| ctacttgatg | ggtaaatttg | gttgctgggt | ttttaagttg | cactcacaat | aaatcgtgca | 2340 |
| aagcattgtc | atgccttatt | tactccattt | ttaatcctgc | atcccagatt | tatggcagca | 2400 |
| acacatatct | acaggatact | tttatgttgt | ccaaatattg | ctgtcagtca | tatgtactta | 2460 |
| taaaatgtct | ccactcatgt | atattttatag | aaatgaaatg | tcaaatttct | cagactgtta | 2520 |
| aagtgcagta | taaagttgct | taatgcacac | ttaaaaatga | tatataattt | ctgaatccta | 2580 |
| tgaaatatgt | gttctttttt | aattcttttg | gagttttctt | aagttttaca | tgttttttgg | 2640 |
| tttattgtta | atgattttgt | ttactctttg | ccaaattttg | tcatgtaggt | tattttacaa | 2700 |
| tagcaccttt | aaaaaaaaatg | tatatgctaa | tttactaagc | atattcatgt | ccatttttat | 2760 |
| ttgatcatct | gatttgtgaa | ataacttgaa | atttgtactg | tttggtttgt | gaaaataata | 2820 |
| ttaccaaate | tctgtcatta | gaatgtgtac | tttatgttca | gaagtgactg | tgggtttatt | 2880 |
| cagatgccagc | cattctctcc | cttgatgcac | tttgtaacca | gctacacatg | cttttaggtg | 2940 |
| gctttttccct | gataggggtca | agtatatgac | tataaaacat | ttttcttgtg | aagctattaa | 3000 |
| gttcattagt | tactcttatt | tccccttggt | gtaactaagt | gggtgcaggta | taagcatatc | 3060 |
| cccagcattc | ctgtgtgtgt | gaatgtgcac | tgctgatttg | gactgttctt | gagaaagggtg | 3120 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| ctgtgacata | tgtcaatatt | tgtagctct | gggatatct | ttagaatgct | tgagaaagtt | 3180 |
| gctaggtgtg | tgccacattg | gtgcaggtaa | atccatgctg | ttcacagcca | agcagcattt | 3240 |
| gcagagaaaa | ggagagtttt | acatagaccc | caggaaaaac | agtactaacc | tggttgatgg | 3300 |
| ccttggtggt | ggaattttgt | ttcagccaga | ggctactcat | tatatcagaa | tgatgttcag | 3360 |
| tataacacta | tctgattttt | agattggctg | atttctgttg | taatcaagta | tttaggatgt | 3420 |
| aatcttttta | aagtcattgc | tttaatctga | aaagccatta | gaagggagag | gaatcactgt | 3480 |
| tccacaggat | atttaaaact | caggagttca | aataacctca | catattgaac | ataaactggt | 3540 |
| aacttattcc | acaactaaat | tctaacctga | tacttatgaa | ttgcaaagtg | attgctgcaa | 3600 |
| actttttcta | aggtggctga | agatttaaaa | tagatcattc | taaagggaaa | tcagtaaaat | 3660 |
| gtcttgataa | ttggtatcca | aatcacttgt | gtgcctgaga | aaataaaagg | taatatttta | 3720 |
| ctttc | | | | | | 3725 |

<210> 12159
 <211> 2082
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12159 | | | | | | |
| ggctggagtg | caatgtctgc | tgcccggggt | caagcaatcc | tcttgctca | gtctcccaag | 60 |
| tagctgggat | tacaggcacc | tgccactgca | cgaggcta | ttttgtagt | ctagtagaga | 120 |
| cgggtttcac | catcttggcc | aggctggctc | tgaactcctg | accttgatg | ccacctgcct | 180 |
| ctgcctccga | aagtgcctggg | atttacaggc | gtgagccacc | acacctggcc | atattttttt | 240 |
| atttttttatt | ccccattgag | gtgtttttca | gagtttatcc | ttagtgatcc | cagttatggt | 300 |
| ttgctaattgt | cagggtgggtc | tttttatcaa | ctactacaat | aaaccaccag | tcgtgccaga | 360 |
| gaaaatgccc | aggattaatt | tctttttag | gaagagcagt | ttgaactata | tggaatcctt | 420 |
| caaaattcta | agaaagtgtt | tgccctgttc | tgtatatatt | ctgccaaaag | ttgttcctaa | 480 |
| tagtctagat | attgattcct | tatgtaagta | gggtcttttt | aatcaaaaagt | gaagtgggac | 540 |
| caaattgttc | agtggcttgt | tctcttctaa | attgttttta | gctgataaga | tttgggaaac | 600 |
| tttctgggct | tccacaaata | atatacaata | catctttgaa | tacttgatgc | ttaaaaagtg | 660 |
| ttgttactgc | atgcaatcag | ggagctccag | agcttttttg | aggctccttg | ttcctgagaa | 720 |
| gcaaatattgt | tttcatatta | tctcggttat | acatttttatg | gttggtgacat | tgcttttctt | 780 |
| ttgtttttgc | tggtgttttc | tgctgctgct | gatttagaaa | tgaaataagc | taactcttaa | 840 |
| ttttaacctg | tttgctacct | aaaatggtaa | tcatcttgat | gttctttcaa | gcagggtcca | 900 |
| gagatcttaa | aatgatccgg | aatcactgag | tccacagttc | tcttttctct | tggttatgta | 960 |
| tagatggaga | gtggctcttg | tggtatatta | gtgtatgatt | cgtatttggt | tcataattaa | 1020 |
| cttcgaagtg | aaaaattgat | gcgagagcaa | aggtttattt | ggtttccata | actattttact | 1080 |
| aattttatgc | ttgccagatt | ttaagattaa | actgtttgcc | atctcttttt | tttttcttcc | 1140 |
| cgtaaaacct | ttggccatct | acagtcactt | ttcctcaaat | cttatgctgt | aattcaaaact | 1200 |
| gtatatctct | tttgctgatt | gcttctgtac | ctcctctgct | tccagtgttc | ttttgcaaga | 1260 |
| gtgtccacac | agtgggaaga | aaacctgaac | ttgactcatg | aagtgtctggg | cattcaaaac | 1320 |
| agtgaatcct | tgcaaaggat | cttggggagta | gacccctgtg | aattggctct | ttcaatttgt | 1380 |
| ccacttaaag | ggcataatag | attatgcagc | tggttgggct | tcagcagggt | attgtcccat | 1440 |
| attcatgcct | agttgcaatt | atgtgaattt | tcagtttggt | acaaagactt | ccctttgtat | 1500 |
| tcaaaacaat | tttggtggct | ttgtgttcta | atatttgagt | tttctctgag | gaaaaatagt | 1560 |
| tgcaagattt | tgaactttga | aaacttcaaa | ttaaaatggt | taaaggtttt | gtcacttttt | 1620 |
| attttctgat | gcaaaccata | cattgaaagc | atattttaag | aagaagtcac | tctaataagc | 1680 |
| tttaatttcg | agtttatgaa | tcacaggatt | tttggtagag | gtaaaaacta | tacttacacc | 1740 |
| gtaaatttaga | cattaaatgc | catttaatca | gtcagataat | gattaatggt | agagtaatgt | 1800 |
| ttgatggggc | aagctgctaa | aacataagca | gttctaatta | aaatatataa | acttatcacg | 1860 |
| taaaaaatagc | aaacttagta | atgtataaag | tgacagtagg | tcttttttgc | ttaaaaatca | 1920 |
| gagttcctgt | gtagtgtctc | tttatgatct | ctgtagtaaa | aatattatgt | aacgtagctt | 1980 |
| agtgagaagt | ttaagaggag | tatacctttt | actttagggt | gcccatgcc | ctttgaagtt | 2040 |
| atggagtgca | aagtgttttc | cacacattaa | aaaaaaaaaa | aa | | 2082 |

<210> 12160
 <211> 2499
 <212> DNA
 <213> Homo sapiens

```

<400> 12160
aggaatctgt cttgaactat cgtttcgcac ctctcggcat tgttgatggt tttactgccg 60
aggtaggggc aagtgggtgt ttctgcccc caccatttgac tcttccagtt gaagtgtcat 120
tctacagtgt ttcagatgac aatgctccct ctccttatat ggcaagtatt ttttatattg 180
tatgttttcc tgccaaatca accaacttaa tgacaaattt aagtgccttg atgcagtact 240
tgaaaaatata aatcattttc taacagctga atacaaacta atatgccaaa atattacctc 300
acaactttct tctaagctag ttcaaacaac agataacctc ttttgcattt aaggatggta 360
ctaaaaatgt acttattttc ctttgtcttg aaaaaatgat aaaaattgat tagtgacact 420
gtaattccat cttgctgagt tcacacacat tctcaaatgc ttagtggtgca ctgtgtcctc 480
tagtcctaca aggcctttggt gacataaggc ttctgtatgg cccttttact cccttttcgg 540
tttggtttgt ctttgggcct atttttttct aatcctaggg ttcttttttt tttttgacag 600
catctcactc tcttgccctag gctggaatgc agtgggtgcag tcatagccca ctgtagcctc 660
aaacttctgg cctcaaacca tcctcttgcc ttggagctcc taaatagctg ggtctacaga 720
tatgcgccac catgcctagc taatttttat gttttgtaga ggcagggcct ccctatattg 780
cccaggctgg tcttgaactc ctggcctcaa gcagacctcc cactttggcc ttccaagtgt 840
tggtgattaca ggcctagacc accacaactg gcctaactct agagtctctt aggatactag 900
ctacttcaga ctcacgctaa tgtcttaatg gagagtgaag taactaagag gagttacagc 960
aagcttgtcc ggcctacagc ccacatgcaa cccaggaagg ctttgaatgt aacccaacac 1020
aaatttgtaa acattcttaa aacattatga gatttttttg tgtgattttt gtttttttagc 1080
tcatcagcta ttgttagtgt tagtatattt tatgtgtggc ccaagacaat tcttctacca 1140
gtgtggccca gggaagccaa aagattggac acctctgagt tatagtgttg agccttaaga 1200
tcaatcttat gatttcacct ttccaatttt ttatttccaa tggcttgttg ataataataag 1260
cattcatttg caaaaacaat actgagtact agtatatgat tagtatcagc cctcttccaa 1320
aagacaaaga gagacaagta gctagccatg caggctctgta aaaagttgac agtgatggta 1380
tcaaataatg agtcaaactc ggggttttcat tttaggtgtt acttttgaga aatgcagatt 1440
actgtaggca ttgaacatta tagcctagtc ttgctgcttg aatttcctaa cttactatct 1500
ggcccaactg cttcctctcc taacacctcc ctccacaacc ttctagggtt tcaaggacat 1560
tagtaacaat gactttttgtc attaataaaa gctgtaaaaa gggacatcta tacaattgag 1620
aaacaacaga gaggaaagga agctactttt aggaacctat atgtggccta ctcattactg 1680
gcccagtttc ttcaaggaaa gcttactcca ttctaagggt gaagatttta gtcaagagct 1740
tgattagtgt ttgacacttt gatagaaaaa gcagagtggg gactgcttat ttattcaaag 1800
ttttcttttc ccaacaacgt tcacatctgt gggtcataag catgaagatg cccagcatag 1860
gttattatcg aaagaagagg cccctttcac aaacctgccc agttattaca tatgctacct 1920
gttcatttac catagaaaga tgtaccactc tttccagaat tattttgaaa aaataactgc 1980
taatttttga cacttaataa aatggaaagt accactgaga taagtttaat accagaataa 2040
atgcatatta tactcgaatg cttacaatat gagaatatag caacagcctg ttttgcctta 2100
ccaggacatc aagaatctga tcagttttcac accttttact ggcatatagt aatagaggat 2160
ggaaagataa ggtctcaaat actgtgatct ggccaggcac agtggctcat atctgaatcc 2220
cagcactttg ggaggctggg gcggacagat cactgaagc tggcagatcg cctgaggcca 2280
agagttcaag accagcctag ccaacatgat gaaacctgt ctctactaat aatacaaaaa 2340
attagccgag catggtggca cacgcctgta atcccagcta ctcaagaggc taaggcagga 2400
gaatcgcttg aacccgggag gcagaggttg cagtgcgccc agatcgcgtc attgcactgc 2460
agcctgggag acaagagcaa aactccatct caaaaataa 2499

```

```

<210> 12161
<211> 119
<212> DNA
<213> Homo sapiens

```

```

<400> 12161
agaatcgctt gaacccggga ggcagagggt gcagtgcgac gagatcgctg cattgcactc 60
cagcctgggc aacaagagca aaactccgtc tccaaaaaaa aaaaaaacia aaacaaaaa 119

```

```

<210> 12162
<211> 2499
<212> DNA
<213> Homo sapiens

```

```

<400> 12162

```

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|--------------|------|
| aggaatctgt | cttgaactat | cgtttcgate | ctctcggcat | tgttgatggt | tttactgccg | 60 |
| aggtaggggc | aagtgggtgt | ttctgcccc | cacatttgac | tcttccagtt | gaagtgtcat | 120 |
| tctacagtgt | ttcagatgac | aatgctccct | ctccttatat | ggcaagtatt | ttttatattg | 180 |
| tatgttttcc | tgccaaatca | aatcaattaa | tgacaaattt | aagtgccttg | atgcagtact | 240 |
| tgaataatata | aatcatttcc | taacagctga | atacaacta | atatgccaaa | atattacctc | 300 |
| acaacttctt | tctaagctag | ttcaaacac | agataacctc | ttttgcattt | aaggatggta | 360 |
| ctaaaaatgt | acttatttct | ctttgtcttg | aaaaaatgat | aaaaattgat | tagtgacact | 420 |
| gtaattccat | cttgctgagt | tcacacacat | tctcaaatgc | ttagtggtgca | ctgtgtcctc | 480 |
| tagtcctaca | aggctttggg | gacataaggc | ttctgtatgg | cccttttact | cccttttcgg | 540 |
| tttggtttgt | ctttgggcct | atttttttct | aatcctaggg | ttcttttttt | tttttgacag | 600 |
| catctcactc | tcttgccctag | gctggaatgc | agtgggtgcag | tcatagccca | ctgtagcctc | 660 |
| aaacttcttg | cctcaaacca | tcctcttgcc | ttggagctcc | taaatagctg | ggctctacaga | 720 |
| tatgcgccac | catgcctagc | taatttttat | gttttgtaga | ggcagggcct | ccctatatattg | 780 |
| cccaggctgg | tcttgaactc | ctggcctcaa | gcagacctcc | cactttggcc | ttccaagtgt | 840 |
| tgggattaca | ggcatgagcc | accacaactg | gcctaactct | agagtctctt | aggatactag | 900 |
| ctacttcaga | ctcacgctaa | tgtcttaatg | gagagtgaag | taactaagag | gagttacagc | 960 |
| aagcttgtcc | ggcctacagc | ccacatgcaa | cccaggaagg | ctttgaatgt | aacccaacac | 1020 |
| aaatttghta | acattcttaa | aacattatga | gatttttttg | tgtgattttt | gttttttttagc | 1080 |
| tcacagctca | ttgttagtgt | tagtatattt | tatgtgtggc | ccaagacaat | tcttctacca | 1140 |
| gtgtggccca | gggaagccaa | aagattggac | acctctgagt | tatagtgttg | agccttaaga | 1200 |
| tcaatcttat | gatttcacct | ttccaatttt | tttatccaa | tggcttgtgg | ataatataag | 1260 |
| cattcattttg | caaaaacaat | actgagtact | agtatatgat | tagtatcagc | cctcttccaa | 1320 |
| aagacaaaga | gagacaagta | gctagccatg | caggtctgta | aaaagttgac | agtgatggta | 1380 |
| tcaaatatgg | agtcaaatct | gggttttcat | tttaggtgtt | acttttgaga | aatgcagatt | 1440 |
| actgtaggca | ttgaacatta | tagcctagtc | ttgctgcttg | aatttcctaa | cttactatct | 1500 |
| ggcccaactg | cttctctctc | taacaccctc | ctccacaacc | ttctagggtt | tcaaggacat | 1560 |
| tagtaacaat | gactttttgtc | attaataaaa | gctgtaaaaa | gggacatcta | tacaattgag | 1620 |
| aaacaacaga | gaggaaagga | agctactttt | aggaacctat | atgtggccta | ctcattactg | 1680 |
| gcccagtttc | ttcaaggaaa | gcttactcca | ttctaagggt | gaagatttta | gtcaagagct | 1740 |
| tgattagtgt | ttgacacttt | gatagaaaaa | gcagagtggg | gactgcttat | ttattcaaag | 1800 |
| ttttcttttc | ccaacaacgt | tcacatctgt | gggtcataag | catgaagatg | cccagcatag | 1860 |
| gttattattcg | aaagaagagg | cccccttcac | aaacctgccc | agttattaca | tatgctacct | 1920 |
| gttcattttac | catagaaaga | tgtaccactc | tttccagaat | tattttgaaa | aaataactgc | 1980 |
| taatttttga | cacttaataa | aatggaaagt | accactgaga | taagtttaat | accagaataa | 2040 |
| atgcatatta | tactcgaatg | cttacaatat | gagaatatag | caacagcctg | ttttgcctta | 2100 |
| ccaggacatc | aagaatctga | tcagtttcac | accttttact | ggcatatagt | aatagaggat | 2160 |
| ggaaagataa | ggtctcaaat | actgtgatct | ggccaggcac | agtggctcat | atctgaatcc | 2220 |
| cagcactttg | ggaggctggg | gcggacagat | cacctgaagc | tggcagatcg | cctgaggcca | 2280 |
| agagtccaag | accagcctag | ccaacatgat | gaaacctgtg | ctctactaat | aatacaaaaa | 2340 |
| attagccgag | catggtggca | cacgcctgta | atcccagcta | ctcaagaggc | taaggcagga | 2400 |
| gaatcgcttg | aacccgggag | gcagaggttg | cagtgcgctc | agatcgcgctc | attgcactgc | 2460 |
| agcctgggag | acaagagcaa | aactccatct | caaaataaaa | | | 2499 |

<210> 12163
 <211> 323
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12163 | | | | | | |
| tctggatgac | agaacaaggc | tccatctcaa | aaaaaaaaaa | tgccagaaga | aatgtgtttt | 60 |
| ttctcttttg | tgtaaatat | ggtaactttt | tctaggtata | aatattaata | tgctgatcaa | 120 |
| ttaaaatgat | gaaattatta | caataatgat | gaataataaa | attccaaata | atttcccagt | 180 |
| cccttttctaa | aattcctaac | ttgccaatgc | tactagtctt | aacattgctt | acaaattggt | 240 |
| ttaaattggt | gccttcaact | ttatggtttt | tttcaaaaag | ctgttttttt | aaataaattg | 300 |
| atttagttac | tgtgttctaa | aaa | | | | 323 |

<210> 12164
 <211> 492
 <212> DNA

<213> Homo sapiens

<400> 12164
ggaatacaaaa gtttaaataa taaagttcct gccttagaga cgtttattgt ctactggaga 60
aggtgggcat ataatttacc caggtagta aataatttat aaactcaagt aattagcatt 120
gtaatagaag ttgcctagta cttgtgtatc tactatctct gctaaaagga ttgaggaaag 180
ctttactgag gagctgtcat ttgagcttgg tcacaaaaga tgagaaggaa tttgccaggt 240
aaatttggtc aggaatcaga gattctagac aaagggaact tcatgtgcaa acgtaaaaga 300
gcatggcaat gttggaaagg atcaactgga gctagagcat gggactctgt atatgttggg 360
agagatgaaa tgagaggcat ggtggagctt aagtgtgtg ctatgaatgt tgacctcatc 420
ctatagacag caggaaacaa agtttttaag tggtaggtga tactataagg cttttttcaa 480
aaaaaagaaaa ag 492

<210> 12165

<211> 323

<212> DNA

<213> Homo sapiens

<400> 12165
tctggatgac agaacaaggc tccatctcaa aaaaaaaaaa tgccagaaga aaatgtgttt 60
ttctcttttg tgtaaataat ggtaactttt tctaggtata aatattaata tgctgatcaa 120
ttaaataatg gaaattatta caataatgat gaataataaa attccaaata atttcccagt 180
ccctttctaa aattcctaac ttgccaatgc tactagtctt aacattgctt acaaattgtt 240
ttaaattgtt gccttcaact ttatggtttt tttcaaaaag ctgttttttt aaataaattg 300
atttagttac tgtgttctaa aaa 323

<210> 12166

<211> 492

<212> DNA

<213> Homo sapiens

<400> 12166
ggaatacaaaa gtttaaataa taaagttcct gccttagaga cgtttattgt ctactggaga 60
aggtgggcat ataatttacc caggtagta aataatttat aaactcaagt aattagcatt 120
gtaatagaag ttgcctagta cttgtgtatc tactatctct gctaaaagga ttgaggaaag 180
ctttactgag gagctgtcat ttgagcttgg tcacaaaaga tgagaaggaa tttgccaggt 240
aaatttggtc aggaatcaga gattctagac aaagggaact tcatgtgcaa acgtaaaaga 300
gcatggcaat gttggaaagg atcaactgga gctagagcat gggactctgt atatgttggg 360
agagatgaaa tgagaggcat ggtggagctt aagtgtgtg ctatgaatgt tgacctcatc 420
ctatagacag caggaaacaa agtttttaag tggtaggtga tactataagg cttttttcaa 480
aaaaaagaaaa ag 492

<210> 12167

<211> 990

<212> DNA

<213> Homo sapiens

<400> 12167
gtgtccttgg gctgtgtgtg gtctgcgtgt ccctgggggt gtctgtgggg tcatgtggcc 60
cctctggctg cctgggttcc ttttctccca catcgtgtct ggcatttctt tattcagaaa 120
tgaggcatct gttgttggct tccctgtgga gtttgtgtcc ctccctgagc tcccgcctct 180
gtggggccag cccagtggtg gacttgtggc cccctgtgct gctgggcctc aggtttgggt 240
ctgaggagta catgggtgtg agtgccttga ccaactggact cttaaaacat gcagccctct 300
ttgactgtga cactggacat gtgcaaaagt tggggactga tcaaaaagta taaagaggcc 360
attgaaaaag accttgactc ctgcaccag aggtagcacc aagaacatgg catgcatttc 420
atctccagct ctcccttctc tcccttctct ccctgttcat tcattcagcc aatctatcag 480
ccaaccagta agcactcacg gacacccacg tgcgcagggt ccatggaggc agccgagtgt 540
ggggactgct gtggcagagc tggcagcctt gtgtgcttcc tgcacttgtg acattttatt 600

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gcagccagtg | cctgtgccat | taagcattcc | ttgaaaataa | aatctttttt | ggctgtacga | 660 |
| tgtttcttcg | tgtagacata | ccaaaagtaa | actcttggcc | ggctgcggtg | gctcatgcct | 720 |
| gtaatcctag | cactttggga | ggctgagacg | ggtggattgc | ctgagctcag | gagttcggac | 780 |
| cagcctgggc | aacacgggtga | aaccccgctc | ctactaaaaa | acaaaaaatt | agctgggcgt | 840 |
| ggtggtgtgt | gcctgtagtc | ccacctactc | aggaggctga | ggcaggagaa | tcgcttgaac | 900 |
| ccgggagaca | aaggttgctg | tgagcctaga | tcacaccatt | gcactccagc | ctgggcgaca | 960 |
| cggagactcc | gtctccaaaa | aaaaaaaaaa | | | | 990 |

<210> 12168
 <211> 1118
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| <400> 12168 | | | | | | |
| tgagaatttg | catttccaac | aagttcccaa | gagattctga | tcttgctggt | cgagagtaac | 60 |
| aatttaagaa | tcattcattct | aggttatata | cctgggagtg | gaattactgt | gatatatagg | 120 |
| gtatgtatat | ctcaatttct | aatgtaacag | ggtttcagag | atcctcttca | cattcttgcc | 180 |
| aaaacttttg | agtattatct | tgccagccta | atcagcttga | aaagttatct | cattgtttta | 240 |
| atgtgcatgt | ttctgatttc | cagtggaggt | atgcatgtat | tcttaacatt | tattggcctt | 300 |
| tcaggaactt | tctgtgagtt | acctgttaca | ttcctttgct | gaatatttaa | tcgtttgttt | 360 |
| tttcataatt | atttataggg | attattttaa | aattctgcat | atgaatcctt | tctgttggtt | 420 |
| agcaaatatc | tttgcccagt | ggatgactta | ccttttaact | ttgttcctga | tgtcttttgt | 480 |
| tgagcaaaaag | tcttttcattt | taatgttatc | agattatcgg | tattttattc | aatggtttgt | 540 |
| gctttttgaa | tcatttttaag | gagatccttc | cctacaaatc | aataagaaaa | atacaaacaa | 600 |
| cacaataaaa | ataaaagtgt | ttataaaaaac | agacataaca | ggcagttcac | agaggcaaaa | 660 |
| acaccagtgg | cctatagact | taagaaatct | cattagtaat | caataaaaatg | caaaaataaat | 720 |
| ctatactatg | atatatacat | ttagtactta | gaatgctggc | atatatttaa | aggcctgaca | 780 |
| atgccaagta | ttggtgaaca | tacgaaacaa | taagaactct | atgtaacctc | agcactttgg | 840 |
| gaggccgagg | ccagcagatc | acctgaggtc | aggagttcga | gaccagcctg | gccaatgtgg | 900 |
| caaaaaccccg | tctctactaa | aaataactaaa | aattagccga | gtttgatggc | acacacttgt | 960 |
| aatcgagct | gctcaggagg | ctgaggcatg | agaatctctt | gaaccagga | ggtggaggtt | 1020 |
| gcagtgaccc | aagatcatgc | cactgcactc | caacactcca | gcctgggtga | cagagcgaga | 1080 |
| ctctgtctca | aaaaaaaaaa | aaaaagaaaa | agaaaaaa | | | 1118 |

<210> 12169
 <211> 1138
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| <400> 12169 | | | | | | |
| tgagaatttg | catttccaac | aagttcccaa | gagattctga | tcttgctggt | cgagagtaac | 60 |
| aatttaagaa | tcattcattct | aggttatata | cctgggagtg | gaattactgt | gatatatagg | 120 |
| gtatgtatat | ctcaatttct | aatgtaacag | ggtttcagag | atcctcttca | cattcttgcc | 180 |
| aaaacttttg | agtattatct | tgccagccta | atcagcttga | aaagttatct | cattgtttta | 240 |
| atgtgcatgt | ttctgatttc | cagtggaggt | atgcatgtat | tcttaacatt | tattggcctt | 300 |
| tcaggaactt | tctgtgagtt | acctgttaca | ttcctttgct | gaatatttaa | tcgtttgttt | 360 |
| tttcataatt | atttataggg | attattttaa | aattctgcat | atgaatcctt | tctgttggtt | 420 |
| agcaaatatc | tttgcccagt | ggatgactta | ccttttaact | ttgttcctga | tgtcttttgt | 480 |
| tgagcaaaaag | tcttttcattt | taatgttatc | agattttcgg | tattttattc | aatggtttgt | 540 |
| gctttttgaa | tcatttttaag | gagatccttc | cctacaaatc | aataagaaaa | atacaaacac | 600 |
| cacaataaaa | ataaaagtgt | ttataaaaaac | agacataaca | ggcagttcac | agaggcaaaa | 660 |
| acaccagtgg | cttatagact | taagaaatct | cattagtaat | caataaaaatg | caaaaataaat | 720 |
| ctatactatg | atatatacat | ttagtactta | gaatgctggc | atatatttaa | aggcctgaca | 780 |
| atgccaagta | ttggtgaaca | tacgaaacaa | taagaactct | atgtaacctc | agcactttgg | 840 |
| gaggccgagg | ccagcagatc | acttgaggtc | aggagttcga | gaccagcctg | gccaatgtgg | 900 |
| caaaaaccccg | tctctactaa | aaataactaaa | aattagccga | gtttgatggc | acacacttgt | 960 |
| aatcgagct | gctcaggagg | atgaggcatg | agaatctctt | gaaccagga | ggtggaggtt | 1020 |
| gcagtgaccc | aagatcatgc | ctgtgcactc | caacactcca | gcgtgggtga | cagagcgaga | 1080 |
| ctctgtctca | aaaaaaaaaa | aaaaagaaaa | agaaaaaa | gaaacactat | aagaattc | 1138 |

<210> 12170
 <211> 1141
 <212> DNA
 <213> Homo sapiens

<400> 12170
 tgagaatttg catttccaac aagttcccaa gagattctga tcctgctggg cgagagtaac 60
 aatttaagaa tcatcattct aggttatata cctgggagtg gaattactgt gatatatagg 120
 gtatgtatat ctcaatttct aatgtaacag ggtttcagag atcctcttca cattcttgcc 180
 aaaactttgg agtattattt tgccagccta atcagcttga aaagttatct cattgtttta 240
 atttgcattg ttctgatttc cagtgaagggt atgcatgtat tcttaacatt tattggcctt 300
 tcaggaactt tctgtgagtt acctgttaca ttcctttgct gaatatttaa tcgtttgttt 360
 tttcatattt atttataggg attattttta aattctgcat atgaatcctt tctgtttgttt 420
 agcaaataac tttgcccagt ggatgactta ccttttaact ttgttcctga tgtcttttgt 480
 tgagcaaaaag tcttttcatt taatgttatc agattatcgg tattttattc aatgggttgt 540
 gctttttgaa tcattttaag gagatccttc cctacaaatc aataagaaaa atacaaacaa 600
 cacaataaaa ataaaagtgt ttataaaaaac agacataaca ggcagttcac agaggcaaaa 660
 acaccagtgg cctatagact taagaaatct cattagtaat caataaaatg caaaaataaat 720
 ctatactatg atataacat ttagtactta gaatgctggc atataattaa aggcctgaca 780
 atgccaagta ttggtgaaca tacgaaacaa taagaactct atgtaacctc agcactttgg 840
 gaggccgagg ccaccagatc acctgaggtc aggagtttta gaccagcctg gccaatgtgg 900
 caaaaccccg tctctactaa aaataactaaa aattagccga gtttgatggc acacacttgt 960
 aatcgcagct gctcaggagg ctgaggcatg agaactctct gaaccagga ggtggagggt 1020
 gcagtgaccc aagatcatgc cactgcactc caacactcca gcctgggtga cagagcgaga 1080
 ctctgtctca aaaaaaaaaa aaaaagaaaa agaaaaaaaa gaaaaacaat aagaattcta 1140
 a 1141

<210> 12171
 <211> 911
 <212> DNA
 <213> Homo sapiens

<400> 12171
 attctagatg agggatatta aaacagtttg tttgactgat tgaatttcta atagttcggg 60
 ggtatttata ctattagttc aagggtagct ttgtttttat ttactttttg ttatgaaata 120
 ttaatatacc aaaagttata tagaataata tagcaaatat ctgtgtagcc agccaacctt 180
 tattaatcat tatcaattcc taatattttc catatttgct taattaaaaa aataataaag 240
 cattatagat attcctgaag acttccacat attcctcacc aatcccatc tcctttatcc 300
 tttccagatg taaccactat cctgaatttg ctattttataa ttctgtgca cgtttttata 360
 tttttactac atagccatat attcaciaat aacatatagt tttatatgtt ttaaaactat 420
 atagatgaca tactctatca ttctacaacc tttttgactc aatatgcata atgcttttga 480
 aattttattc taaagatata aggaactata tagtattcca ttgtagaaat agaccatcat 540
 ttgttatatt tatccacttt cctgaagatt tgttctttct gttattttgc tattacagtt 600
 aattctgcaa caagtattat catacacctc ttgttgaca tatgccagac tttttctagg 660
 acagtgtttt tcaaacttag attacaatta gtaggttaca accaatggga tttttttaat 720
 gaaatggaat agaatagaaa atatcaaaaa gtgttcccta cagtatgtta gggttaattac 780
 tgttttcttaa agcttttttt ttatatgtgt ttgtgtatat gtgacataat gtgtgtgggg 840
 ccacattgaa gaatgcagtt cttcgtgtag atctcaatca aaagtgttgg gaagggtgtca 900
 ttctattaca g 911

<210> 12172
 <211> 1071
 <212> DNA
 <213> Homo sapiens

<400> 12172
 aggctcttct agccttctct tctcatctaa gagagaaaaa aagctgtgaa gtgcttgtga 60

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|------|
| aggttacagg | ctggagacac | aggcacacta | aaagattgag | acttcatcat | aggattagag | 120 |
| aatgcctccc | cttccacacc | ttgctactac | atcaacagag | cttcagtata | ataatcgtgg | 180 |
| attatagctg | aaagacctgc | aaggatcaga | ctctatttaa | ggagggtttt | ttgttgctgt | 240 |
| tttgttttga | tttgtttttt | tttttttttt | taaatccaaa | ggaaacaagg | gagacaaaaa | 300 |
| gacagtagaa | gaaacagaaa | cttctgacac | ctacagctac | atcaaacatt | aagcacagcc | 360 |
| caactcctgg | ccagattaac | ataaaacctc | ataactaatg | tctcttttga | ttagttccta | 420 |
| ttacttgata | gatcatgtcc | agttttcaac | aaaagaaatt | ataacgtatg | ctaaaaaaa | 480 |
| aaaaaacaca | cattctgaag | aggcaaaaaca | agcgtgagaa | ccaaattcag | gttttggaat | 540 |
| tatcagatat | ggaattttaa | ataaccacga | ttaatatact | aagtaggcta | tgaataaaa | 600 |
| tagataacat | gcaagaccag | atggctaata | taaacagaga | gaaactctaa | gaaagaatca | 660 |
| aaaggagttg | ctagaaatca | aaaacactgt | aacaaatgaa | gaatgccttt | gataggctca | 720 |
| tcagtaagtt | ggaaacagcc | aaggaaggaa | tcagtaaggt | tgaagacatg | gcaataaaaa | 780 |
| cttcccattg | tgaataacaa | aggaaaaaaa | gactgaaaaa | aaggaacaga | atatccaaga | 840 |
| actatgggac | gatttcagag | tataacatac | atgttatttg | aataccaaaa | ggagaagaga | 900 |
| aaaagaagga | gaagaaatat | ttgaagtagt | aatggatgag | aattttccaa | aattaatagc | 960 |
| agataacaaa | ctacagatct | gggaagctcc | agaacacca | agcaggataa | ataccagaac | 1020 |
| tacacctaag | cgtatcatgt | tcaaactaca | gaaagacaaa | gaaaagattt | t | 1071 |

<210> 12173
 <211> 911
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-----|
| <400> 12173 | | | | | | |
| attctagatg | agggatatta | aaacagtttg | tttgactgat | tgaatttcta | atagttcggg | 60 |
| ggtattttata | ctattagttc | aagggtagct | ttgtttttat | ttactttttg | ttatgaaata | 120 |
| ttaatatata | aaaagttata | tagaataata | tagcaaatat | ctgtgtagcc | agccaacctt | 180 |
| tattaatcat | tatcaattcc | taatattttc | catatttgct | taattaaaaa | aataataaag | 240 |
| cattatagat | attcctgaag | acttccacat | attcctcacc | aatcccattc | tcctttatcc | 300 |
| tttccagatg | taaccactat | cctgaatttg | ctattttata | ttcctgtgca | cgtttttata | 360 |
| tttttactac | atagccatat | attcacaaat | aacatatagt | tttatatgtt | ttaaaactat | 420 |
| atagatgaca | tactctatca | ttctacaacc | tttttgactc | aatatgcata | atgcttttga | 480 |
| aatttatatt | taaagataca | aggaactata | tagtattcca | ttgtagaaat | agaccatcat | 540 |
| ttgttatatt | tatccacttt | cctgaagatt | tgttctttct | gttattttgc | tattacagtt | 600 |
| aattctgcaa | caagtattat | catacacctc | ttgttgacac | tatgccagac | tttttctagg | 660 |
| acagtgtttt | tcaaaacttag | attacaatta | gtaggttaca | accaatggga | tttttttaat | 720 |
| gaaatggaat | agaatagaaa | atatcaaaaa | gtgttcctta | cagtatgtta | gggtaattac | 780 |
| tgtttcttaa | agcttttttt | ttatatgtgt | ttgtgtatat | gtgacataat | gtgtgtgggg | 840 |
| ccacattgaa | gaatgcagtt | cttcgtgtag | atctcaatca | aaagtgttgg | gaagggtgtca | 900 |
| ttctattaca | g | | | | | 911 |

<210> 12174
 <211> 462
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12174 | | | | | | |
| aggctcttct | agccttcctg | tctcatctaa | gagagaaaaa | aagctgtgaa | gtgcttgtga | 60 |
| aggttacagg | ctggagacac | aggcacacta | aaagattgag | acttcatcat | aggattagag | 120 |
| aatgcctccc | cttccacacc | ttgctactac | atcaacagag | cttcagtata | ataatcgtgg | 180 |
| attatagctg | aaagacctgc | aaggatcaga | ctctatttaa | ggagggtttt | ttgttgctgt | 240 |
| tttgttttga | tttgtttttt | tttttttttt | gtaaatccaa | aggaaacaag | ggagacaaaa | 300 |
| agacagtaga | aaaaacagaa | acttttgaca | cctacagcta | catcaaacat | taagcacagc | 360 |
| ccaactcctg | gccagattaa | cataaaacct | cataactaat | ggctcttttg | attagatcct | 420 |
| attacttgat | agatcatgtc | cagatttcaa | caaaagaaat | ta | | 462 |

<210> 12175
 <211> 911

<212> DNA
<213> Homo sapiens

<400> 12175
attctagatg agggatatta aaacagtttg tttgactgat tgaatttcta atagttcggg 60
ggtatttata ctattagttc aagggttagct ttgtttttat ttactttttg ttatgaaata 120
ttaatatatac aaaagttata tagaataata tagcaaatat ctgtgtagcc agccaacctt 180
tattaatcat tatcaattcc taatatatttc catatttgct taattaaaaa aataataaag 240
cattatagat attcctgaag acttccacat attcctcacc aatcccattc tccttttatcc 300
tttccagatg taaccactat cctgaatttg ctattttataa ttcctgtgca cgttttttata 360
tttttactac atagccatat attcacaaat aacatatagt tttatatgtt ttaaaactat 420
atagatgaca tactctatca ttctacaacc tttttgactc aatatgcata atgcttttga 480
aatttatttc taaagataca aggaactata tagtattcca ttgtagaaat agaccatcat 540
ttgttatatt tatccacttt cctgaagatt tggtctttct gttattttgc tattacagtt 600
aattctgcaa caagtattat catacacctc ttgttgacac tatgccagac tttttctagg 660
acagtgtttt tcaaacttag attacaatta gtaggttaca accaatggga tttttttaat 720
gaaatggaat agaataagaaa atatacaaaaa gtgttcacct cagtatgtta gggtaattac 780
tggtttcttaa agcttttttt ttatatgtgt ttgtgtatat gtgacataat gtgtgtgggg 840
ccacattgaa gaatgcagtt cttcgtgtag atctcaatca aaagtgttgg gaagggtgtca 900
ttctattaca g 911

<210> 12176
<211> 238
<212> DNA
<213> Homo sapiens

<400> 12176
acagggccag gagatcgaga ccatacctggc taagatgggtg aaaccccgct tctactaaaa 60
atacaaaaaa ttagccaggc atgggtggcgg gcgcctgtag tcccagctac tcgggaggct 120
gaggcaggag aatggcctga acctgggagg cagagcttgc agtgagccga gatcatgcca 180
ctgcactcca gcctgggtgg cagagcgaga ctctgtctca aaaaaaaaaa aaaacaaa 238

<210> 12177
<211> 181
<212> DNA
<213> Homo sapiens

<400> 12177
aattagccgg gcgtgggtggc aggcgcctgt agtcccagct acttgggagg ctgaggcagg 60
agaatggcgt gaaccaggga ggccggagctt gcagtgcgct gagatcgcg cactgcactc 120
cagcctgggc gacagggcaa gactccgtct caaaaaaaaaa aaaaaaaaaa aaaaaattgt 180
g 181

<210> 12178
<211> 364
<212> DNA
<213> Homo sapiens

<400> 12178
aaccaccatc aaacaggatt ttcgcctgct ggggcaaacc agcgtggacc gcttgctgca 60
actctctcag ggccaggcgg tgaagggcaa tcagctgttg cccgtctcac tgggtgaaaag 120
aaaaaccacc ctggcgccca atacgcaaac cgctctccc cgcgcttgg ccgattcatt 180
aatgcagctg gcacgacagg tttcccagct ggaaagcggg cagtgcgcgc aacgcaatta 240
atgtgagtta gctcactcat taggcacccc aggctttaca ctttatgctt ccggctcgta 300
tggtgtgtgg aattgtgagc ggataacaat ttcacacagg aaacagctat gaccatgatt 360
acgc 364

| T. aureocellum | |
|----------------|------|
| 1991 | 10.1 |
| 1992 | 10.1 |
| 1993 | 10.1 |
| 1994 | 10.1 |
| 1995 | 10.1 |
| 1996 | 10.1 |
| 1997 | 10.1 |
| 1998 | 10.1 |
| 1999 | 10.1 |
| 2000 | 10.1 |
| 2001 | 10.1 |
| 2002 | 10.1 |
| 2003 | 10.1 |
| 2004 | 10.1 |
| 2005 | 10.1 |
| 2006 | 10.1 |
| 2007 | 10.1 |
| 2008 | 10.1 |
| 2009 | 10.1 |
| 2010 | 10.1 |
| 2011 | 10.1 |
| 2012 | 10.1 |
| 2013 | 10.1 |
| 2014 | 10.1 |
| 2015 | 10.1 |
| 2016 | 10.1 |
| 2017 | 10.1 |
| 2018 | 10.1 |
| 2019 | 10.1 |
| 2020 | 10.1 |
| 2021 | 10.1 |
| 2022 | 10.1 |
| 2023 | 10.1 |
| 2024 | 10.1 |
| 2025 | 10.1 |
| 2026 | 10.1 |
| 2027 | 10.1 |
| 2028 | 10.1 |
| 2029 | 10.1 |
| 2030 | 10.1 |
| 2031 | 10.1 |
| 2032 | 10.1 |
| 2033 | 10.1 |
| 2034 | 10.1 |
| 2035 | 10.1 |
| 2036 | 10.1 |
| 2037 | 10.1 |
| 2038 | 10.1 |
| 2039 | 10.1 |
| 2040 | 10.1 |
| 2041 | 10.1 |
| 2042 | 10.1 |
| 2043 | 10.1 |
| 2044 | 10.1 |
| 2045 | 10.1 |
| 2046 | 10.1 |
| 2047 | 10.1 |
| 2048 | 10.1 |
| 2049 | 10.1 |
| 2050 | 10.1 |
| 2051 | 10.1 |
| 2052 | 10.1 |
| 2053 | 10.1 |
| 2054 | 10.1 |
| 2055 | 10.1 |
| 2056 | 10.1 |
| 2057 | 10.1 |
| 2058 | 10.1 |
| 2059 | 10.1 |
| 2060 | 10.1 |
| 2061 | 10.1 |
| 2062 | 10.1 |
| 2063 | 10.1 |
| 2064 | 10.1 |
| 2065 | 10.1 |
| 2066 | 10.1 |
| 2067 | 10.1 |
| 2068 | 10.1 |
| 2069 | 10.1 |
| 2070 | 10.1 |
| 2071 | 10.1 |
| 2072 | 10.1 |
| 2073 | 10.1 |
| 2074 | 10.1 |
| 2075 | 10.1 |
| 2076 | 10.1 |
| 2077 | 10.1 |
| 2078 | 10.1 |
| 2079 | 10.1 |
| 2080 | 10.1 |
| 2081 | 10.1 |
| 2082 | 10.1 |
| 2083 | 10.1 |
| 2084 | 10.1 |
| 2085 | 10.1 |
| 2086 | 10.1 |
| 2087 | 10.1 |
| 2088 | 10.1 |
| 2089 | 10.1 |
| 2090 | 10.1 |
| 2091 | 10.1 |
| 2092 | 10.1 |
| 2093 | 10.1 |
| 2094 | 10.1 |
| 2095 | 10.1 |
| 2096 | 10.1 |
| 2097 | 10.1 |
| 2098 | 10.1 |
| 2099 | 10.1 |
| 2100 | 10.1 |
| 2101 | 10.1 |
| 2102 | 10.1 |
| 2103 | 10.1 |
| 2104 | 10.1 |
| 2105 | 10.1 |
| 2106 | 10.1 |
| 2107 | 10.1 |
| 2108 | 10.1 |
| 2109 | 10.1 |
| 2110 | 10.1 |
| 2111 | 10.1 |
| 2112 | 10.1 |
| 2113 | 10.1 |
| 2114 | 10.1 |
| 2115 | 10.1 |
| 2116 | 10.1 |
| 2117 | 10.1 |
| 2118 | 10.1 |
| 2119 | 10.1 |
| 2120 | 10.1 |
| 2121 | 10.1 |
| 2122 | 10.1 |
| 2123 | 10.1 |
| 2124 | 10.1 |
| 2125 | 10.1 |
| 2126 | 10.1 |
| 2127 | 10.1 |
| 2128 | 10.1 |
| 2129 | 10.1 |
| 2130 | 10.1 |
| 2131 | 10.1 |
| 2132 | 10.1 |
| 2133 | 10.1 |
| 2134 | 10.1 |
| 2135 | 10.1 |
| 2136 | 10.1 |
| 2137 | 10.1 |
| 2138 | 10.1 |
| 2139 | 10.1 |
| 2140 | 10.1 |
| 214 | |

```
<210> 12180
<211> 247
<212> DNA
<213> Homo sapiens
```

```
<210> 12181
<211> 170
<212> DNA
<213> Homo sapiens
```

```
<210> 12182
<211> 184
<212> DNA
<213> Homo sapiens
```

```
<210> 12183
<211> 131
<212> DNA
<213> Homo sapiens
```

<210> 12184
<211> 227
<212> DNA

<213> Homo sapiens

<400> 12184

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| taagaccatc | ctggctaaca | cggtgaaacc | ccgtctctac | taaaaatata | aaaattagcc | 60 |
| aggcgtggtg | gcgggcgcct | gtagtcccag | ctacttggga | ggctgaggca | ggagaatggc | 120 |
| atgaaccg | gaggtggagc | ttgcagttag | ctgagatcgc | gccactgcac | tccagcctgg | 180 |
| gcaacagagc | gagactctgt | ctcaaaaaaa | aaaaaaaaaa | tcaagta | | 227 |

<210> 12185

<211> 47

<212> DNA

<213> Homo sapiens

<400> 12185

| | | | | | | |
|------------|------------|------------|------------|---------|--|----|
| gcactccaac | ctgggcgaca | gagcaagact | ccgtctcaaa | aaaaaaa | | 47 |
|------------|------------|------------|------------|---------|--|----|

<210> 12186

<211> 91

<212> DNA

<213> Homo sapiens

<400> 12186

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|----|
| cccgggagggc | ggagcttgca | gtgagctgag | attgcaccac | tacactccag | cctgggcgac | 60 |
| agagttagac | tctgtctcaa | aaaaaaaaaga | a | | | 91 |

<210> 12187

<211> 143

<212> DNA

<213> Homo sapiens

<400> 12187

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gtagtcccag | ctactgggga | ggctgaggca | ggagaatggc | gtgaacctgg | gaggcggagc | 60 |
| ttgcagttag | ccgagatcgc | gccactgcac | tccagcctgg | gcgacagagc | gagactccgt | 120 |
| ctcaaaaaaa | aaaaaaagaa | atg | | | | 143 |

<210> 12188

<211> 686

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (95)

<223> n equals a,t,g, or c

<400> 12188

| | | | | | | |
|-------------|-------------|-------------|------------|------------|------------|-----|
| caccaaggcc | agttttggaag | cgaacgggcta | ccccgaaatt | aagatactac | agcgtgagtt | 60 |
| atgagaaaagc | gccacgcttc | ccgaggggaag | aaagncggga | cagttatccg | gtagccggca | 120 |
| gggtcgaacc | agaagagcgc | acgaggagct | tccaagggga | aaacgcctgg | tatctttata | 180 |
| gtcctgtcgg | gtttcgcac | ctctgacttg | agcgtcgatt | tttgtgatgc | tcgtcagggg | 240 |
| ggcggagcct | atggaaaaaac | gccagcaacg | cggccttttt | acggttcttg | gccttttgct | 300 |
| ggccttttgc | tcacatgttc | tttcctgcgt | tatcccctga | ttctgtggat | aaccgtatta | 360 |
| ccgcctttga | gtgagctgat | accgctcgcc | gcagccgaac | gaccgagcgc | agcgagtcag | 420 |
| tgagcgagga | agcggaagag | cgcccaatac | gcaaaccgcc | tctccccgcg | cgttggccga | 480 |
| ttcattaatg | cagctggcac | gacaggtttc | ccgactggaa | agcgggcagt | gagcgcaacg | 540 |
| caattaatgt | gagtttagctc | actcattagg | caccccaggc | tttacacttt | atgcttccgg | 600 |
| ctcgtatgtt | gtgtggaatt | gtgagcggat | aacaatttca | cacaggaaac | agctatgacc | 660 |

atgattacga attcgagctc ggtacc

686

<210> 12189

<211> 141

<212> DNA

<213> Homo sapiens

<400> 12189

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| cagctactcg | ggaggctgag | gcaggagaat | ggcgtgaacc | tgggaggcag | agcttgagct | 60 |
| gagccgagac | agcgccactg | cactccagcc | tgggtgaaag | agcgagactc | cgtctcaaaa | 120 |
| aaaaaaaaaa | aaaaaaaaatt | t | | | | 141 |

<210> 12190

<211> 184

<212> DNA

<213> Homo sapiens

<400> 12190

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aaatacaaaa | aattagccag | gcgtggtggc | gggtgcctgt | agtcccagct | actcgggagg | 60 |
| ctgaggcagg | agaatggcat | gaacctggga | ggcggagctt | gcagtgagct | gagatcgtgc | 120 |
| cactgcactc | cagcctgggc | aacagagcaa | gaccccgtct | caaaaaaaaa | aaaaaaaaaa | 180 |
| ggaa | | | | | | 184 |

<210> 12191

<211> 108

<212> DNA

<213> Homo sapiens

<400> 12191

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tggcgtgaac | ctgggaggca | gagcttgag | tgagctgaga | ttgcgccact | gcactccagc | 60 |
| ctgggcaaca | gagtgagact | ccatcttaaa | aaaaaaaaaa | aaaatata | | 108 |

<210> 12192

<211> 105

<212> DNA

<213> Homo sapiens

<400> 12192

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctggaacctg | ggaggcagag | tttgagctga | gccgagatca | ggccactgca | ctccagcctg | 60 |
| ggcaacagag | caagactctg | tctcaaaaaa | aaaaaaaaaa | aaaag | | 105 |

<210> 12193

<211> 175

<212> DNA

<213> Homo sapiens

<400> 12193

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgggcgtagt | ggcgggcgcc | tgtagtccca | gctacttggg | aggctgaggc | aggagaatgg | 60 |
| cgtaacctcg | ggaggcggag | cttgagctga | gccgagattg | cgccactgca | ctccagcctg | 120 |
| ggcgacagag | cgagactccg | tctcaaaaaa | aaaaaaaaaa | aaaaaaaaaa | atcac | 175 |

<210> 12194

<211> 189

<212> DNA

<213> Homo sapiens

| 2. Health status | |
|--------------------|---------|
| 2.1. Health status | 2.1.1 |
| 2.1.2 | 2.1.2 |
| 2.1.3 | 2.1.3 |
| 2.1.4 | 2.1.4 |
| 2.1.5 | 2.1.5 |
| 2.1.6 | 2.1.6 |
| 2.1.7 | 2.1.7 |
| 2.1.8 | 2.1.8 |
| 2.1.9 | 2.1.9 |
| 2.1.10 | 2.1.10 |
| 2.1.11 | 2.1.11 |
| 2.1.12 | 2.1.12 |
| 2.1.13 | 2.1.13 |
| 2.1.14 | 2.1.14 |
| 2.1.15 | 2.1.15 |
| 2.1.16 | 2.1.16 |
| 2.1.17 | 2.1.17 |
| 2.1.18 | 2.1.18 |
| 2.1.19 | 2.1.19 |
| 2.1.20 | 2.1.20 |
| 2.1.21 | 2.1.21 |
| 2.1.22 | 2.1.22 |
| 2.1.23 | 2.1.23 |
| 2.1.24 | 2.1.24 |
| 2.1.25 | 2.1.25 |
| 2.1.26 | 2.1.26 |
| 2.1.27 | 2.1.27 |
| 2.1.28 | 2.1.28 |
| 2.1.29 | 2.1.29 |
| 2.1.30 | 2.1.30 |
| 2.1.31 | 2.1.31 |
| 2.1.32 | 2.1.32 |
| 2.1.33 | 2.1.33 |
| 2.1.34 | 2.1.34 |
| 2.1.35 | 2.1.35 |
| 2.1.36 | 2.1.36 |
| 2.1.37 | 2.1.37 |
| 2.1.38 | 2.1.38 |
| 2.1.39 | 2.1.39 |
| 2.1.40 | 2.1.40 |
| 2.1.41 | 2.1.41 |
| 2.1.42 | 2.1.42 |
| 2.1.43 | 2.1.43 |
| 2.1.44 | 2.1.44 |
| 2.1.45 | 2.1.45 |
| 2.1.46 | 2.1.46 |
| 2.1.47 | 2.1.47 |
| 2.1.48 | 2.1.48 |
| 2.1.49 | 2.1.49 |
| 2.1.50 | 2.1.50 |
| 2.1.51 | 2.1.51 |
| 2.1.52 | 2.1.52 |
| 2.1.53 | 2.1.53 |
| 2.1.54 | 2.1.54 |
| 2.1.55 | 2.1.55 |
| 2.1.56 | 2.1.56 |
| 2.1.57 | 2.1.57 |
| 2.1.58 | 2.1.58 |
| 2.1.59 | 2.1.59 |
| 2.1.60 | 2.1.60 |
| 2.1.61 | 2.1.61 |
| 2.1.62 | 2.1.62 |
| 2.1.63 | 2.1.63 |
| 2.1.64 | 2.1.64 |
| 2.1.65 | 2.1.65 |
| 2.1.66 | 2.1.66 |
| 2.1.67 | 2.1.67 |
| 2.1.68 | 2.1.68 |
| 2.1.69 | 2.1.69 |
| 2.1.70 | 2.1.70 |
| 2.1.71 | 2.1.71 |
| 2.1.72 | 2.1.72 |
| 2.1.73 | 2.1.73 |
| 2.1.74 | 2.1.74 |
| 2.1.75 | 2.1.75 |
| 2.1.76 | 2.1.76 |
| 2.1.77 | 2.1.77 |
| 2.1.78 | 2.1.78 |
| 2.1.79 | 2.1.79 |
| 2.1.80 | 2.1.80 |
| 2.1.81 | 2.1.81 |
| 2.1.82 | 2.1.82 |
| 2.1.83 | 2.1.83 |
| 2.1.84 | 2.1.84 |
| 2.1.85 | 2.1.85 |
| 2.1.86 | 2.1.86 |
| 2.1.87 | 2.1.87 |
| 2.1.88 | 2.1.88 |
| 2.1.89 | 2.1.89 |
| 2.1.90 | 2.1.90 |
| 2.1.91 | 2.1.91 |
| 2.1.92 | 2.1.92 |
| 2.1.93 | 2.1.93 |
| 2.1.94 | 2.1.94 |
| 2.1.95 | 2.1.95 |
| 2.1.96 | 2.1.96 |
| 2.1.97 | 2.1.97 |
| 2.1.98 | 2.1.98 |
| 2.1.99 | 2.1.99 |
| 2.1.100 | 2.1.100 |

```
<210> 12201
<211> 177
<212> DNA
<213> Homo sapiens
```

```
<210> 12202
<211> 140
<212> DNA
<213> Homo sapiens
```

```
<210> 12203
<211> 114
<212> DNA
<213> Homo sapiens
```

```
<210> 12204
<211> 114
<212> DNA
<213> Homo sapiens
```

```
<210> 12205
<211> 364
<212> DNA
<213> Homo sapiens
```

<400> 12205
aaccaccatc aaacaggatt ttcgcctgct ggggcaaacc agcgtggacc gcttgctgca 60
actctctcag ggccaggcgg tgaagggcaa tcagctgttg cccgtctcac tgggtgaaaag 120
aaaaaccacc ctggcgccca atacgcaaac cgcctctccc cgcgcgttgg ccgattcatt 180
aatgcagctg gcacgacagg ttccccgact ggaaagcggg cagtgcgcgc aacgcaatta 240
atgtgagtta gctcactcat taggcacccc aggttttaca ctttatgctt ccggctcgta 300
tggtgtgtgg aattgtgagc ggataacaat ttcacacagg aaacagctat gaccatgatt 360
acgc 364

<210> 12206
<211> 153
<212> DNA
<213> Homo sapiens

<400> 12206
cccagctact cgggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca 60
gtgagccgag atcgcgccac tgcactccag cctgggagac agagcgagac tccgtctcaa 120
aaaaaaaaaa aaaaaaaga aagcagtggg gcc 153

<210> 12207
<211> 121
<212> DNA
<213> Homo sapiens

<400> 12207
ggctgaggca ggaaaatggc atgaacccgg gaggcggagc ttgcagtgcg ctgagatcgc 60
agcactgcac tccagcctgg gcaacagagc gagactccat ctcaaaaaaa aaaaaaaaaa 120
a 121

<210> 12208
<211> 166
<212> DNA
<213> Homo sapiens

<400> 12208
ctgggcgtgg tggcgggtgc ctgtagtccc agctacttgg gaggcgtgagg caggagaatg 60
gcgtgaaccc gggaggcgga gcttgagtg agccgagatc aggccactgc actccagcct 120
gggcaacaga gtgagactcc gtctcaaaaa aaaaaaaaaa aagata 166

<210> 12209
<211> 190
<212> DNA
<213> Homo sapiens

<400> 12209
atcactgggc gtagtgggcg gcgcctgtag tcccagctac ttgggaggct gaggcaggag 60
aatggcgtga acccgggagg cggagcttgc agtgagccga gatcccgcca ctgcactcca 120
gcctgggcga cagagcgaga ctccgtctca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaagaaa 190

<210> 12210
<211> 2364
<212> DNA
<213> Homo sapiens

<400> 12210

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctcactcctg | taatcccagc | actttgggag | gccgaggcgg | gcggatcacg | aggtcaggag | 60 |
| atcgagacca | tcctgggctaa | cacggtgaaa | ccccgtctct | actaaaaata | caaaaaaaaaa | 120 |
| attagccggg | cgtggtagcg | ggcgcctgta | gtcccagcta | ctcgggaggc | tgaggcagga | 180 |
| gaatggcgtg | aacctgggag | gcggagcttg | cagtgaagcg | agatcgcgcc | actgcactcc | 240 |
| agcctgggcg | acagagcgag | actccgtctc | aaaaaaaaaa | aaaaaaaaaa | aaaagaataa | 300 |
| agtataagag | aacatgagtg | aatgcctgtc | atcttttttt | ttttttcttc | aaaaacaggg | 360 |
| tctcactttg | tcacccaggc | tgcagtgcag | tggcgcaatc | atgggtcact | gcaacctcta | 420 |
| gcacctgggc | tcaagagctc | aagaggctct | accaactcag | cctcccaagg | agctgggact | 480 |
| acaggtgcat | gccaccacac | cctaaggtaa | attttttgtg | ttttatagag | acagggtttta | 540 |
| ccatgttgcc | caggctgttc | tgaaactcct | gggcttaagg | gatcgacca | cctccatctc | 600 |
| ccaaggcact | gggattatag | gcatgagcca | ccgcgcctgg | cctatcatca | tttattcatt | 660 |
| tattcatcta | tgcaaaaaata | ttctttgagt | gcctaattgc | taagcaatgg | gacaagcact | 720 |
| ggcaagtcac | actggcaaaa | tatcatcccc | ccactcaagg | agcttatagg | tcagctgggg | 780 |
| agacaaagaa | gaacatgggc | ccttgtaatg | agctaagtat | ggtgctaggg | gaaatatcca | 840 |
| taagttatgg | gaacccagag | gaattcattc | atttattcgt | ttagtaaata | tttatgtgcc | 900 |
| aaactcttgg | gacccaatgg | tgacctaaag | agacaagaca | catccacctc | cagtgtttac | 960 |
| agagtagtgt | gggagacaga | cattaatgaa | atgctcttac | agacctatca | ttacctattg | 1020 |
| tcatatgagt | tatgaaagaa | aaataacagg | ccgggcatga | tggctcacgc | ctgtaatccc | 1080 |
| agcacttttg | gagaccaagg | cagggtggatc | acttgagggtc | aggagttcaa | gaccagcctg | 1140 |
| gccaacatga | tgaaacccca | tctctactaa | aaatacaaaa | aaaaaaaaaat | tatctgggca | 1200 |
| tggtggcagg | cagctgtaat | cccagctact | cgggaggctg | aggcaggaaa | ctcgcttgaa | 1260 |
| cctgggaggc | agaggttgca | ctgagctgag | attgcaccac | tgcactccag | cctgggtgac | 1320 |
| agagcaagac | tctgtcaaaa | aaaaaaaaaa | aaaagaaagg | aaggaaagga | aggaagggaag | 1380 |
| gaaggaagga | aatagagtgt | aagagggggg | cctagtgtag | tctaagatga | ctcaggagaa | 1440 |
| gctgtttgag | ctgatgcctg | aagacggggt | gcatgtaagt | agttgagtag | gtaaaagaga | 1500 |
| gggggtactat | catatcaggg | attcggggaga | aaaaaaaaaga | gagagagaga | ggggaagagt | 1560 |
| gctgtggacc | cattgagctc | cagcccagct | ccaactctgt | gggtcaggaa | agactttcca | 1620 |
| gcatctaagc | tgagtccaga | aggatgagta | ggagtgaagc | agctgaggag | gagctggggg | 1680 |
| ggaaggaaaag | cattccagag | cagcagatag | cttgtgcaaa | ggcacacagg | cagctgggtg | 1740 |
| tggtgggtca | cacctgtaat | cccagcactg | tgggaggcca | agatgggtgg | accgttttag | 1800 |
| cccaggaatt | caagaccaac | ctggatgaca | tagtgaaacc | ctgtctctac | caaaaaaaaaa | 1860 |
| aaaaaaaaaaa | ttgaaaaaaa | aaaagaagct | gggcatgggtg | gcgtgcacct | gtgggtcccag | 1920 |
| ctacccagga | aactgagggtg | ggagggaagt | cgaggctgta | gtgaaccatg | gtggcaccat | 1980 |
| tgcattccag | cccgggtgac | agagcaaggc | cctgtacaaa | aaaaaaaaaaa | aaaaaagcat | 2040 |
| ggaggcaaca | gaacatagtg | gattggaagg | aaaaacaagt | ggttcagacc | agggtgcagtg | 2100 |
| gctcatgcct | gtaatcccag | cactttggga | ggccgaggcg | ggcagatcac | gaggtcagga | 2160 |
| gatcaagacc | atcctcgcta | acacagtgaa | accccgctctc | tactaaaaat | acaaaaaaat | 2220 |
| tagccaggcg | tggtgggtgcg | tgcctgtagt | cccagctact | caagaggctg | aggcaggaga | 2280 |
| atggcgtgaa | cctgggaggc | agagcttgca | gtgagcggag | atcatgccac | tgactccag | 2340 |
| cctgggcgac | agagcaagac | tcca | | | | 2364 |

<210> 12211
 <211> 158
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12211 | | | | | | |
| gcctgtagtc | ccagctactc | gggaggctga | ggcaggagaa | tggcatgaac | ccaggaggcg | 60 |
| gagcttgtag | tgagcagaga | tcgcgccact | gcactccagc | ctgggcaaca | gagcgagact | 120 |
| ctgtctcaga | aaaaaaaaa | aaaaagaaaa | aagaaaaat | | | 158 |

<210> 12212
 <211> 193
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12212 | | | | | | |
| cgggcgtggt | agcggggcgcc | tgtagtccca | gctactcggg | aggctgaggc | aggagaatgg | 60 |
| ctgaacccg | ggaggcggag | cttgtagtga | gccgagatcg | cgccactgca | ctccagcctg | 120 |

<213> Homo sapiens

<400> 12218
 cccagctact caggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca 60
 gtgagccgag atcccgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa 120
 aaaaaaaaaa aaaaaaaatg ga 142

<210> 12219

<211> 123

<212> DNA

<213> Homo sapiens

<400> 12219
 aggcaggaga atggcgtgaa cccgggaggc ggagcttgca gtgagccgag atcccgccac 60
 tgcactccag cctgggcgac agagcgagct ccgtctcaaa aaaaaaaaaa aaaaatgctg 120
 tta 123

<210> 12220

<211> 45

<212> DNA

<213> Homo sapiens

<400> 12220
 ccagcctggg ggacagagcg agactccgtc tcaaaaaaaaa aaaaa 45

<210> 12221

<211> 243

<212> DNA

<213> Homo sapiens

<400> 12221
 acgagatcag gagatcgaga ccatacctggc taacacggtg aaaccctgtc tctactaaaa 60
 atacataaaa ttagccgggc gtgttgccgg gcgcctgtag tcccagctac tcgggaggct 120
 gaggcaggag aatggcgtga acccgggagg tggagcttgc agtgagctga gattgcgcca 180
 ctgcaactcca gcctgggcga cagagcgaga ctctgtctca aaaaaaaaaa attaaattaa 240
 att 243

<210> 12222

<211> 307

<212> DNA

<213> Homo sapiens

<400> 12222
 gccgggcgcg gtggctcacg cctgtaatcc cagcactttg ggaggccgag gcgggaggat 60
 catgaggtca ggagatcgag accatcctgg ctaacacggt gaaaccccat ctctactaaa 120
 aatacaaaaa attagccagg cgtggtggcg ggcgcctgta gtcccagcta ctcgggaggc 180
 tgaggcagga gaatggcgtg aacctgggag gcggagcttg cagtgaagccg agatcgcgcc 240
 actgaactcc agcctgggag acagagcgag actccgtctc aaaaagaaaa taaaaaagaa 300
 aaatttc 307

<210> 12223

<211> 131

<212> DNA

<213> Homo sapiens

<400> 12223

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tttttttttt | gagacagagt | ctcgctctgt | cgcccaggct | ggagtgtagt | ggcgcgatct | 60 |
| tggctcactg | caagctccgc | ctccccgggt | cacaccattc | tcctgcctca | gcctcccaag | 120 |
| tagctgggac | t | | | | | 131 |

<210> 12224
 <211> 288
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12224 | | | | | | |
| attaagcgcg | gcggtgtgtg | tggttacgcg | cagcgtgacc | gctacacttg | ccagcgcctt | 60 |
| agcgcccgcg | cctttcgctt | tcttcccttc | ctttctcgcc | acgttcgccg | gctttccccg | 120 |
| tcaagctcta | aatcgggggc | tccctttagg | gttccgattt | agtgccttac | ggcacctcga | 180 |
| ccccaaaaaa | cttgattttg | gtgatgggtc | acgtagtggg | ccatcgccct | gatagacggg | 240 |
| ttttcgccct | ttgacgttgg | agtccacggt | ctttaatagt | ggactcct | | 288 |

<210> 12225
 <211> 268
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-----|
| <400> 12225 | | | | | | |
| cggccgaatt | ctgccctccg | ctaacgagct | atagctttgt | ggaaatgggc | gagtggcgtg | 60 |
| cccttgtgag | cctcagggcc | gcattctgta | aatgggcata | actgtcatgc | ctgtctttta | 120 |
| gaacagcctt | gggggtaaat | gagtgggaact | catggaaaga | tctcagccca | caaccttcca | 180 |
| cagaacaggc | gcttctcaca | cagtaagtag | caggagtgcg | gaggctgcag | gcattgaatcc | 240 |
| agccagactg | cctgggttca | agtccccag | | | | 268 |

<210> 12226
 <211> 160
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12226 | | | | | | |
| gcttgcttgc | ctctgtagac | tccacctctg | ggggcagggc | atagccaaac | aaaaggcagc | 60 |
| agaaacctct | gcagacttaa | atgtccctgt | ctgacagctt | tgaagagagt | agtgggttct | 120 |
| ccagcatgca | gctggagatt | tgagaacgga | cagactgcct | | | 160 |

<210> 12227
 <211> 368
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 12227 | | | | | | |
| ggcatgggca | aggacttcat | gtctaaaacg | ccaaaagcaa | tggcaacaaa | agacaaaatt | 60 |
| gacaaatggg | atctaattaa | actaaagagc | ttctgcacag | caaaagagtc | taccatcaga | 120 |
| gtgaacaggc | aacctataca | atgggagaaa | aatttttgcaa | tctactcatc | tgacaaaagg | 180 |
| ctaatatcca | gaatctacag | tgaactcaaa | caaattttaca | agaaaaaaac | aaacaacccc | 240 |
| atcaaaaagt | gggcaaagta | tatgaacaga | cacttctcaa | aagaagacat | ttatgcagct | 300 |
| aaaagacaca | tgaaaaaatg | cccatcatca | ctggccatca | gagaaatgca | aatcaaaacc | 360 |
| acaatgag | | | | | | 368 |

<210> 12228
 <211> 2925
 <212> DNA
 <213> Homo sapiens

<400> 12228

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctccccgagta | gctggggacta | caggcgccccg | ccaccacgcc | tggetaattt | tttgtatttt | 60 |
| tagtagagac | gggggtttcac | cgcgttagcc | aggatgggtct | tgatctcctg | acctcgtgat | 120 |
| cgcgccgtct | cggcctccca | aagtcctggg | attacaggcg | tgagccaccg | cgcgccgctg | 180 |
| agatgggtat | tattaagaaa | ttaagatgtg | gattaccagg | gtaagtcata | tttcaatgtg | 240 |
| caacctctgc | aagtcacag | ggtgtgatat | ggacattaag | gagatctatg | gacgaatagc | 300 |
| gtatgatacc | ttgacaagtt | gacaaaatgt | aaaatagttg | aatggccata | gaaaaaaacc | 360 |
| agcttttttag | ccccataggc | cgaggggattc | aggaggggctg | gctacgggca | ttttggaatg | 420 |
| gaagatggtg | taccaacaaa | tcaagcttag | gttcctggca | atgtgcccac | atataatatg | 480 |
| tgaaagtcca | gatgtgaaat | aaatctgcgg | ctaataagtaa | gaacctagcc | acaggaggtta | 540 |
| aaacttacgg | ttctgggacc | agatggactg | ccttctaate | ttagtcttac | tacatttttag | 600 |
| cggtaaaacc | ttcagcaagt | tatttagcct | ccagcatctc | agttttctca | tctgtaaaat | 660 |
| ggtgataatg | ctactcttac | attgggttgt | agtaggataa | aaggagaaaa | cgtatgtaaa | 720 |
| ggatttagta | gaaacttatt | aaaattaagc | aattattatt | tctcaattct | aagattctaa | 780 |
| cctgcaaaag | gcataaggca | gctgctgaga | acagggtgag | aagataggga | ttcgggtcagg | 840 |
| aaaagtcttg | tttccctgtt | gctgttggtg | gttttggttg | ctcatttggtg | tgtttttttt | 900 |
| attaatcatt | ttcacttggtg | tttattgaca | agcttaatca | ataatgccat | tgacatttag | 960 |
| taaaagtaaa | tttcccttaag | tgatctccca | ggtagcaatg | tttattcatt | atgtgtggag | 1020 |
| tagagatagg | aattattttta | ttgctgcaaa | tattttatta | ttgggtttttc | aagtttttaa | 1080 |
| agtaatttta | attttttta | ttttgtgagt | atataagtaa | tgacacatatt | tatgggggtac | 1140 |
| atgagatatt | ttgatcacagg | catatgatgt | gtaataatca | catcagggta | aacagggtaa | 1200 |
| gcacacctc | aagcatttgt | ccttttttgt | attacaaaga | atctaattat | actcttttag | 1260 |
| ttatttttaa | atgtacaata | aattattgtt | gactatagtt | ttgccactgc | aaacaataga | 1320 |
| aggcttctctg | atacagcctc | ctagtcattg | gagttctatg | gcagaattcc | ttaaagttttt | 1380 |
| aagtttcatg | agatggctaa | attttggtaa | atatgatact | ttctttgaac | agatgctaca | 1440 |
| gaggccaata | taaaggagtg | taacagagtg | acacctgtga | tcagtatctc | tccaactaca | 1500 |
| aagagtgtcc | cttaaatttc | ttctgtgtgg | ttcctctttt | tttttttttt | tttttttgag | 1560 |
| acgaagtctc | gctctgtcgc | ccaggctggg | gtgcagtggc | gcgaacttgg | ctcgtctgcaa | 1620 |
| gctcgcctc | cggggttcac | tccattctcc | tgccctcacc | tctcaagtag | ctgggactac | 1680 |
| aggctcctgc | caccactccc | ggcttaatttt | tttttgcatc | tttagtgaga | gatgggggtt | 1740 |
| cactgtgtta | gccaggatgg | tctccatctc | ctgacctcat | gatccagccg | ccttggcctc | 1800 |
| ccaaagtgtc | cggattacag | gcgtgagcca | ccgcgctcgg | cctgtgtggc | tcctcttaag | 1860 |
| taatactctg | cttcgtccat | ataagcagag | gtcagaactg | gctaagaatt | tctttatgtg | 1920 |
| tgtttatcct | gatgttttcc | tactgtcact | tttcttttct | tatggattag | cattgaggga | 1980 |
| atggtcagat | ggtgcctgcg | tgagtctgat | tgaaacattt | tagcggcggg | gtgcgggggt | 2040 |
| tgatggcatg | tgcaatagtt | taggatattt | gagtttagtg | cagaatgtag | acatgagggt | 2100 |
| gagtagagag | tgcgtagcag | agcaagcaat | tcagggaatc | atgttggtta | attacttttg | 2160 |
| ttttgtggac | attttattct | acctgaaaag | attatctagg | aactacagaa | attaatgacg | 2220 |
| tgtagtgga | actttgtaca | gtgtaagtgt | tatccattta | cttctcttag | tttccaatac | 2280 |
| aatgactctc | ctggtagctg | tcatacatga | taaatataat | ttcgtttaata | aaattatatt | 2340 |
| ttatataatt | gcgtacttta | aacaagtgtg | caatataact | cagttataaa | tgtacagtaa | 2400 |
| caaagatcaa | tggaataata | atacttctgc | gttcattttc | atggatacat | tctatttttg | 2460 |
| tttgtctcac | aagcagtaat | cagactatga | atcatgatat | agctccataa | acacttactt | 2520 |
| tatagcaatt | cactgatata | tgctccacca | aaaaaaatta | agagacggat | acaagcaatt | 2580 |
| taaagcttct | gtgtgtgtgt | gcatgcaacc | gatgtgtatg | gctttttttt | tttttttttt | 2640 |
| ttttgacaca | gagtgtcgct | ctgtcgccca | ggctggagtg | cagtggcgctg | atctccgctc | 2700 |
| actgcaagct | ccgcctgcct | ggttcacgcc | attctcctgc | cttagcctcc | caagtagctg | 2760 |
| ggacttcagg | cgcctgacac | cacgcctggc | taattttttg | tatttttagt | agagacgggg | 2820 |
| tttcaccgtg | ttatccagga | tggtctccat | ctcctgacct | cgtgatccac | ctgcctccgc | 2880 |
| ctcccaaagt | gctgggatta | caggcttgag | cctcctcgcc | cggcc | | 2925 |

<210> 12229

<211> 288

<212> DNA

<213> Homo sapiens

<400> 12229

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| attaagcgcg | gcgggtgtgg | tggttacgcg | cagcgtgacc | gctacacttg | ccagcgccct | 60 |
| agcgcgcgct | cctttcgctt | tcttcccttc | ctttctcgcc | acgttcgccc | gctttccccc | 120 |

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| tcaagctcta | aatcgggggc | tccctttagg | gttccgattt | agtgcctttac | ggcacctcga | 180 |
| ccccaaaaaa | cttgatttgg | gtgatgggtc | acgtagtggg | ccatcgccct | gatagacggg | 240 |
| ttttcgccct | ttgacgttgg | agtccacgtt | ctttaatagt | ggactctt | | 288 |

<210> 12230
 <211> 4704
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|--------------|-------------|-------------|-------------|------------|------|
| <400> 12230 | | | | | | |
| tattattata | ctttaagttt | cagggtacat | gtgcacaatg | tgcaggtttg | ttacacatgt | 60 |
| atacatgtgc | catgtttggtg | tgctgcaccc | atcaactcgt | catttagcat | tagatatatc | 120 |
| tcctaattgct | atccctcccc | actcccccta | ccccacaaca | gtccccgggtg | tgtgatgttc | 180 |
| cccttcctgt | gtccatgtgt | tctcattgtt | caattctcat | ctatgagtga | gaacatgtgc | 240 |
| tgtttggttt | tttgtccttg | caatagtttg | ctgagaatga | tggtttccag | cttcatccat | 300 |
| gtccctacaa | aggacatgaa | ctcatccttt | tttatggctg | catagtattc | catgggtgat | 360 |
| atgtgccaca | ttttcttaat | ccagtctatc | attgttggac | atctcggttg | gttccaagtc | 420 |
| tctgctattg | tgaatagtgc | cgcaataaac | atacatgtgc | atgtgtcttt | atagcagcat | 480 |
| gatttacaat | cctttgggta | tatacccagt | aatgggatgg | ctgggtcaaa | tggtatttct | 540 |
| agttctagat | ccctgaggaa | tcgccacacc | gacttccaca | atggttgaac | tagtttacag | 600 |
| ccccaccaac | agtgtaaaag | tgttcctatt | tctccacatc | ctctcagcac | ctgttggttc | 660 |
| ctgacttttt | aatgatctcc | attctaactg | ttgtgagatg | gtatctcatt | gtggttttga | 720 |
| tttgcatttc | tgatgatggc | cagtgatgat | gagcattttt | tcatgtgttt | tttggttgca | 780 |
| taaatgtctt | cttctgagaa | gtatctgttc | atataccttg | cccacttttt | gatgggggtg | 840 |
| tttggttttt | tcttgtaaat | ttgtttgagt | tcattgtaga | ttctggatat | tagccctttg | 900 |
| tcagatgagt | aggttgcaaa | aactttctcc | cattctgtag | gttgccctgtt | cactctgatg | 960 |
| gtggtttctt | ttgctgtgca | gaagctcttc | agtttaatta | gatcccat | gtcaattttg | 1020 |
| gcttttggtg | ccattgcttt | tggtgtttta | gacatgaagt | tcttaccat | gcctatgtcc | 1080 |
| tgaatggat | tgcctagggt | ttcttcttagg | gtttttatgg | ttttaggctc | aacatgtaa | 1140 |
| ttcttaattc | atcttgaaat | aatttttgta | taagggtgta | ggaagggtac | cagtttcagc | 1200 |
| tttctacata | tggctagcag | gttttcccag | caccatttat | taaataggga | atcctttccc | 1260 |
| cattgcttgt | ttttgtcagg | tttgtcaaag | atcagatagt | tgtagatatg | tgacattatt | 1320 |
| tctgagggct | ctgttctgtt | ccattgggtc | atatactctg | tttggtacca | gtaccatgct | 1380 |
| gttttggtta | ccatagcctt | gtagtatagt | ttgaagtcag | gtagtgtgat | gcctccagct | 1440 |
| ttgttctttt | ggcttaggat | tgacttggca | atgtgggctc | ttttttgggt | ccatatgaac | 1500 |
| tttaaagtag | ttttttccaa | ttctgtgaag | aaagtcattg | gtagcttgat | gggaatggca | 1560 |
| ctgaatcttt | aaatgacctt | gggcagtatg | gccattttca | cgatattgat | tcttcttacc | 1620 |
| catgagcatg | gaatgttctt | ccattttgtt | gtatccccct | ttatttcatt | gagcagtggt | 1680 |
| ttgtagtctt | ccttgaagag | gtccttcaca | tccttgttaa | gttggattcc | taggtatttt | 1740 |
| attctctttg | aagcaattgt | gaatgggagt | tcactcatga | tttggctctc | tgtttgtctg | 1800 |
| ttattgggtg | ataagaatgc | ttgtgatttt | tgcacattga | ttttgtatcc | tgagactttg | 1860 |
| ctgaagtgtc | ttatcagctt | aaggagattt | tgggctgaga | tgatgggggt | ttctagatat | 1920 |
| acaatcatgt | catctgcaaa | cagggacaat | ttgacttctt | cttttcgtaa | ttgaatgcc | 1980 |
| tttatttcct | tctcctgctt | gattgcctcg | gccagaactt | ccacactatg | ttgaatagga | 2040 |
| gtgggtgagag | agggcatccc | tgtcttgtgc | cagttttcaa | agggatgct | tccagttttt | 2100 |
| gcccattcag | tatgatattg | gctgtgggtt | tgtcatagct | agctcttatt | attttgagat | 2160 |
| acatcacatc | aataccta | ttattgagag | tttttagcat | gaagcattgt | tgaattttgt | 2220 |
| caaaggcttt | ttctgcatcc | attgagataa | tcattgtggt | tttgtctttg | gttctgttta | 2280 |
| tatgctggat | tacgtttatt | gattttctga | tggtgaacca | gccttgcac | ccaggaggga | 2340 |
| agccactag | atcatgggtg | ataaactttt | tgatgtgctg | ctgtatttgg | tttgccagta | 2400 |
| ttttattgag | gattttttgca | tcaatgttca | tcaaggatat | tgggtctaaa | ttctcttttt | 2460 |
| tgggtgtgtc | tctgccaggc | tttgggtatca | ggatgattct | ggccacataa | aatgagttag | 2520 |
| ggaggattcc | ctctttttct | attgatttga | atagtttccag | aagggaatgg | accagctcct | 2580 |
| ccttgtacat | ctggtagaat | tcggctgtga | atccatctgt | tcctggactt | tttttggttg | 2640 |
| gtaagctatt | gattatttcc | tcaatttccag | tgctgttat | tggtatattc | agagattcaa | 2700 |
| cttcttctct | gttttagctt | gggaggatgt | atgtgtcaag | gaatttatcc | atttcttcta | 2760 |
| gattttgtag | tttatttgca | tagagggtgt | tatagtattc | tctgatggta | gtttgtattt | 2820 |
| ctgtgggata | gggtgggtgata | tccccctttat | catttttttat | tgctgtctatt | tgattcttct | 2880 |
| ctcttttctt | ctttatttagt | cttgcctgtc | atcaattttg | ttgatctttt | caaaaaacca | 2940 |
| gctcctgaat | tcattaattt | tttgaagggt | tttttgtgtc | tctatttcct | tcagttcttc | 3000 |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| tctgatctta | gttatttctt | gccttctgct | agcttttgaa | tgtgtttgct | cttgcttctc | 3060 |
| tagttctttt | aattgtgatg | ttaggggtgc | aatttttagat | ctttcctgct | ttctcttttg | 3120 |
| ggcatttagt | gctataaatt | tccctctaca | cactgctttg | aatgtgtccc | agagattctg | 3180 |
| gtatgttgct | tttgttctca | ttggtttcaa | agaacacctt | tatttctgcc | ttcatttctg | 3240 |
| tatgtaccca | gcagtcattc | aggagcaggt | tgttcagttt | ccatgtagtt | gagtgggttt | 3300 |
| gagtgaagtt | cttaatcctg | agttctagtt | tgattgcact | gtgggtctgag | agacagtttg | 3360 |
| ttataatttc | tgttctttga | catttgctga | ggagtgcctt | acttccaact | atgtcaattt | 3420 |
| tggaataggt | gtgggtgtgg | gctgaaaaga | atgtatatcc | tggtgatttg | gggtggagag | 3480 |
| ttctgtagat | gtctattagt | tccgcttggt | ttagagctga | gttcaattcc | tgggtatcct | 3540 |
| tgtaactttt | ctgtcttggt | gatctgtcta | atgttgacag | tgggggtgta | aagtctctga | 3600 |
| ttattattgt | gtaggagtct | aagtctcttt | gtagttcact | aaggacttgc | tttatgaatc | 3660 |
| tgggtgctcc | tgatttgggt | gcataatata | ttaggacagt | ttgcttttct | tggtgaattg | 3720 |
| atccctttac | cattatgtaa | tggccttctt | tgctcttttt | gatctttggt | ggtttaaagt | 3780 |
| ctgtttttatc | agagactagg | attgcaatcc | ctgccttttt | ctgttttcca | tttgcttggt | 3840 |
| agatcttctc | ccatcccttt | attttgagcc | tatgtgtgtg | tctgcacgtg | agatgggttt | 3900 |
| cctgaataca | gcacactgat | gggtcttgac | tctttatcca | atttgccagt | ctgtgtcttt | 3960 |
| taattggagc | atthagccta | tttacattca | aagttagtat | tggtatatgt | gaatttgatc | 4020 |
| ctgtcattat | tatgtcagtt | ggttattttg | ctcattagtt | gatgcagttt | cttccttagcc | 4080 |
| tcgatggctc | ttacaatttg | gcattgtttt | gcagtggctg | gtactgggtg | ttcctttcca | 4140 |
| tgtttagtgc | ttcttccttc | aggagctctt | ttaggacagg | cctgggtggg | acaaaatctc | 4200 |
| tcagcatttg | cttgctctga | aagtatttta | ttctctcttc | acttatgaag | cttagtttgg | 4260 |
| ctggatatga | aattctgggt | tgaataattct | ttctcttaag | aatgttgaat | attgcccccc | 4320 |
| actctcttct | ggcttgtaga | gtttctgcca | agagatcagc | tgtagtctg | atgtgcttcc | 4380 |
| ctttgtgggt | aaccgcacct | ttctctctgg | ctgcccttaa | cattttttcc | ttcatttcaa | 4440 |
| ctttggtgaa | tctggcaatt | atgtgtcttg | gagttgctct | tctcgaggat | tatctctgtg | 4500 |
| gtgttctctg | tatttctctg | atgtgaatgt | tggcctgcct | tgctagattg | gggaagttct | 4560 |
| cctggataat | atcctgcaga | gtgttttcca | acttggttcc | attctccccg | tcactttcag | 4620 |
| gtacacaaaa | cagacgtagg | tttgggtctt | tcacatagtc | ccatatttct | tggaggcttt | 4680 |
| gtttcttttt | attctttttt | ctct | | | | 4704 |

<210> 12231
 <211> 102
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12231 | | | | | | |
| tttttttttt | tttttttttt | gagacggagt | ctcgtctctg | cgcccaggct | ggagtgcagt | 60 |
| ggcacgatct | cggtctcactg | caagctctgc | ctcccgggtt | ca | | 102 |

<210> 12232
 <211> 2305
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|-----|
| <400> 12232 | | | | | | |
| tacgtgttca | ggtgcttaga | acagcttctt | gcattctttt | tcacatgatg | cctttttaat | 60 |
| gaggtcttagc | ctaacaaccc | tattttaaatt | tgcaatgtaa | gttttctcac | atacacagtt | 120 |
| acaatcctcc | ctttatcagc | tctacatttt | tttttaatag | actgaatctc | gctctgttgc | 180 |
| ccagcccatc | tgggccact | gaaacctcca | cctcccggtt | tcaagcgatt | ctcctgcctc | 240 |
| agcctcccga | gtagctgaga | ttacaggcgc | ctgccaccac | gccaggttaa | tttttgatt | 300 |
| tttggttagag | acgggggttt | accatgttgg | ccaggctggg | ctcaaaactcc | tgacctcagg | 360 |
| tgatctgtcc | accttggcct | cccaaagtgc | tgggattaca | ggtgtgaacc | acctcgcccc | 420 |
| gccatctact | ttttttaata | gccctcctta | tcacctttat | tcatttgact | cactgatgat | 480 |
| tcccaagtgc | taagaacaat | gtctgtcatg | taattgatga | aaactttggt | gaattaatac | 540 |
| ctttgtttgtg | ttttattcag | actgtatata | caatacttgg | atgaagagag | atatttttag | 600 |
| cactattaaa | atacatgcat | tggctcaata | catgaattgg | atcaattctg | gaaccctaac | 660 |
| aagatcacat | ttttgaccaa | agtcaaatat | ttggactata | gttaatttat | caaggtaaat | 720 |
| gccactttga | tgtgtcttgg | ttaggaatct | ttgttctact | gaggggaatac | atggatatatg | 780 |
| ataggaacag | taagcacaga | atagagatgg | gaaagggaga | accctgtcat | aacagttaac | 840 |

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|------|
| atttcatatt | tgccaaacat | gaatggctta | tgcataat | cacattta | tctctcaacc | 900 |
| attttatgac | gtctgaggcc | actgaagcag | ctagagggtta | aaccacttcc | ctaaagtcac | 960 |
| tagtaagtgg | cagagccagg | attaaaaatt | taagtcctta | actactttgc | catcctgcc | 1020 |
| cactctgcac | atgcagacaa | gagtaagagc | cttaaatcttg | ggaaaagata | tttcacaaga | 1080 |
| tctttgacaa | tttccatata | cacagacacc | atccagctta | ttagtgacca | ccactcctat | 1140 |
| ttgttacttt | ctcctttaag | gctgccccta | cctgaactct | ggatcccagt | accatcactt | 1200 |
| tctcaaggac | ctcccttctc | cagtgttgcc | ctctcttgac | tcccctacca | gcattctaac | 1260 |
| atgctcagat | ctattgcata | ttaagtcctc | tcctaactcc | acattccttt | ctacctactg | 1320 |
| ccctagcttt | tccacttcac | aactagaata | ccctcattgt | atccaccttg | ggcctcctat | 1380 |
| ttactcagta | catctggttc | ttaccaagat | cactgataac | cttcttgata | ctgtttaata | 1440 |
| gatecctttc | aaccctcatc | ttatttgctc | aatcctttggc | atttggcact | gttgaccatc | 1500 |
| ttgtctcctt | gaagcttcca | taatagcata | tttaaaattt | ttctgccttt | tcttctatcc | 1560 |
| tcagcttctt | ttgggagctc | tccctccttc | ttctgtatgt | ccgttaaata | ttgctgctct | 1620 |
| tcagtcttat | gtcgaggcc | cttaaatctt | ctcactgaac | caccttcctg | tggcctcagt | 1680 |
| taccatccat | tgagctctgt | gccgttggcc | gctagtcca | cagtcaaaat | gaaccaatta | 1740 |
| tcttaacccc | atacttcctc | ttctataaaa | atctgtccta | ggaaatttca | cctctttgcc | 1800 |
| aggccagaaa | tcagggcata | atattaataa | aatagtttagc | acatattgtg | tactttcttc | 1860 |
| agtgccaggc | actcttctaa | ccactttata | tgtattagct | catcagactc | agcctgataa | 1920 |
| tatgagatga | gtcctgtcat | tatccacata | ttagataaca | aatctgagac | atagaaaagt | 1980 |
| aatctgcctt | aggtcattca | actgataaag | gatagagttg | ggatttgaat | gagggcactc | 2040 |
| tggtttgagc | ttgtaatcat | tatatcataa | aggacatgat | gcttgacttc | tctttctctc | 2100 |
| accctaattc | aacctattgc | caagtattgt | acattctcca | tgttaaaat | ctctaggcgg | 2160 |
| tgtccctgaa | gtataaatcc | aaagccttca | tgcctgtaat | ccgagtgtt | taggaggcca | 2220 |
| aggcaggagg | actgcttgag | cccaggagtt | tgagaccagc | ctggacaaca | aagtgagatt | 2280 |
| catctctcca | aaaaaaaaaa | aaaaa | | | | 2305 |

<210> 12233
 <211> 254
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|------------|
| <400> 12233 | |
| ttcttttctt | tttttttctt |
| tttagacggag | tcttgctctg |
| tcgcccaggc | tggagtgtag |
| tggtttctat | tttaactgaa |
| ggagagatta | atttctgtgc |
| aaggttgaaa | aaggtgacca |
| caaattcttt | gggcttcttt |
| catcaagagg | tgaagtccat |
| tacccacgc | cttaactctg |
| ggctggcttt | ggtgtgtgtt |
| tgccaatag | aatatggctg |
| aggcgctgct | tccaagatta |
| ggcctgaatt | gagatgccct |
| agcagccagg | cagcacctgc |
| cagagcatga | ataaggctat |
| cttggaaccgc | ccagcgtagc |
| caacctgtgc | tgaatgaagc |
| cacatgaata | tgcccaggag |
| aaactagcag | aagaatcacc |
| caccttgccc | acgttagaga |
| tataaaccac | tatttgaggc |
| agtttgttat | gcagcaaaac |
| ttagccgaaa | ctattacctt |
| gctaccttga | ctgctggtgt |
| aatttcccat | ctcatggagt |
| cacagagttt | tcttgccaac |
| tgcaagtgtg | tggttttctg |
| atccactcca | tcctgtatta |
| tcatctgcga | ataccgtttt |
| tcccttaaat | gcaatgtgtc |
| tttcaaagct | gacttgaatt |
| tctcaccttt | cgagttacct |
| gccatttggg | ctcacttatt |
| tggaggagat | atgtaaagac |
| ccagcgtaat | acctgtatgc |
| tcaataaaaa | gtatttgctg |
| gtactccttc | ctgcccgtcg |
| tgtgacctga | ctgctctggg |
| cttctggggg | ctccccctaa |
| actcgctcca | cgaaatgacc |
| cctccaacct | ggcacgccc |
| ctctcctacc | ttcgcccagg |
| gctggccggt | atctctgtgc |
| tgtcacgcgg | |

<210> 12234
 <211> 1104
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|------------|
| <400> 12234 | |
| ccgtatcagc | atcagcaaac |
| tgaacactga | atgattctta |
| ctccaagagg | caagtcttag |
| tggtttctat | tttaactgaa |
| ggagagatta | atttctgtgc |
| aaggttgaaa | aaggtgacca |
| caaattcttt | gggcttcttt |
| catcaagagg | tgaagtccat |
| tacccacgc | cttaactctg |
| ggctggcttt | ggtgtgtgtt |
| tgccaatag | aatatggctg |
| aggcgctgct | tccaagatta |
| ggcctgaatt | gagatgccct |
| agcagccagg | cagcacctgc |
| cagagcatga | ataaggctat |
| cttggaaccgc | ccagcgtagc |
| caacctgtgc | tgaatgaagc |
| cacatgaata | tgcccaggag |
| aaactagcag | aagaatcacc |
| caccttgccc | acgttagaga |
| tataaaccac | tatttgaggc |
| agtttgttat | gcagcaaaac |
| ttagccgaaa | ctattacctt |
| gctaccttga | ctgctggtgt |
| aatttcccat | ctcatggagt |
| cacagagttt | tcttgccaac |
| tgcaagtgtg | tggttttctg |
| atccactcca | tcctgtatta |
| tcatctgcga | ataccgtttt |
| tcccttaaat | gcaatgtgtc |
| tttcaaagct | gacttgaatt |
| tctcaccttt | cgagttacct |
| gccatttggg | ctcacttatt |
| tggaggagat | atgtaaagac |
| ccagcgtaat | acctgtatgc |
| tcaataaaaa | gtatttgctg |
| gtactccttc | ctgcccgtcg |
| tgtgacctga | ctgctctggg |
| cttctggggg | ctccccctaa |
| actcgctcca | cgaaatgacc |
| cctccaacct | ggcacgccc |
| ctctcctacc | ttcgcccagg |
| gctggccggt | atctctgtgc |
| tgtcacgcgg | |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| ggaagtccca | tctgaactgg | ggccttatga | ccttcggtac | ttttattcga | acgtagcctg | 960 |
| cgtcctctgc | tggaacctgg | ttcccgcctt | gaaggaccct | tacttagcac | tcctgcgggc | 1020 |
| tgccgggacc | ccacggctcc | gcaggcggag | agactaggcg | cgatccctgc | gcgccccctc | 1080 |
| ttctcttgcg | cttcaggggg | cggg | | | | 1104 |

```
<210> 12235
<211> 1214
<212> DNA
<213> Homo sapiens
```

```
<210> 12236
<211> 560
<212> DNA
<213> Homo sapiens
```

```
<210> 12237
<211> 221
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gctgaggcag | gagagttgct | tgaacctggg | aggtggaggt | tgcagtgagc | caagatcacg | 180 |
| ccattgcact | ccagcctggg | agacagagca | agactctgtc | t | | 221 |

<210> 12238
 <211> 16312
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|-------------|-------------|------|
| <400> 12238 | | | | | | |
| gtttccgggc | ggggacactc | agggcgcgac | gctttttctgt | taccacaga | ggcccgcgc | 60 |
| ggctgcgcca | tccgcggcca | tgaagtttcg | ggccaagatc | gtggacgggg | cctgtctgaa | 120 |
| ccacttcaca | cgtgagcagg | gagggcggag | aggagcgagg | gaggaacgga | aggaagcagt | 180 |
| gagcgcgcg | tggggaccgc | gcaggaggat | cagaacgggg | atgggcgccc | gaaggggccc | 240 |
| cgggaggatg | gggcccggg | gggggtgctg | gtgtaggccc | cgggagggtg | gggcccggg | 300 |
| ggcgccgggc | gggtcggagg | gcacttgtgg | ggatgaaggc | ggctttcaag | ggacgtttct | 360 |
| gaaacttgat | tccgatcacg | tggctttaa | aaaaagcggc | caactgtccc | atagacggct | 420 |
| ttatcaggca | ttgacatacc | ttcaaggccc | cattcgtccc | tccaccctga | cagtgcctaa | 480 |
| ccttgcat | aactgtgtat | tgcagtacct | agtagtcaat | aaatccatgt | tgaatgaatg | 540 |
| aatgactgg | aggtgcctgt | tttcttattt | gaacactgat | gatgtgtgct | gtacatctcc | 600 |
| cctagtttgt | tgggagaatt | gcgtgacatc | aggggtatta | aagtactttc | cagtgtgata | 660 |
| ccaacgttaa | gtgggtattt | ttccaccgag | aagttgatga | acaagaaatt | ctgcaaaata | 720 |
| agttggtctc | taggatacat | aatgtgcatt | ttagtaattc | cttattttta | cccctgcttt | 780 |
| aggaatcagt | aacatgatag | ccaagcctgc | caaaacctgc | accctccgca | tcagccctga | 840 |
| taagcttaac | ttcatccttt | gtgacaagct | ggctaattga | ggagtgaagc | tgtggtgtga | 900 |
| gctggaacag | gtgagcaaaa | gcttctgaga | ggcctgcaca | ctctgcagat | tgtcactgga | 960 |
| aagatcacat | ataccctccc | tcacccctca | ttttttttcc | cttaggagaa | cttcttcaac | 1020 |
| gaatttcaaa | tgagggtgtg | ctctgcagaa | aacaatgaga | tttattttaga | gctaacatcg | 1080 |
| gaaaacttat | ctcgagcctt | gaagactgcc | cagaatgcca | gggctttgaa | aatcaaactg | 1140 |
| actaataaac | actttccctg | cctcacggtc | tccgtggagc | tggtgagtag | gagagtcagg | 1200 |
| gtttctaaac | cagaagtctt | ggcctcgaa | gaatagacat | agttagccta | gcctttttta | 1260 |
| caataaatac | tggtgaaagc | tggttggttt | attttaaattt | aaagatctgg | tccataacta | 1320 |
| tattttgcat | tagagtacgt | tcctcctcat | ttttaaattg | tggtgttatc | atatgcattc | 1380 |
| agctagaatg | ctgctttttc | caagccgtga | aacttccagc | ctctctgttt | cttgtagtgg | 1440 |
| tattgtcacc | ttgtctagaa | atcatgggtt | ctctatccat | tttcaccttt | gacatgtttt | 1500 |
| ctccccactc | ccaccctgcc | tcactctgta | taataacctt | taaatggccc | ctcgttcttc | 1560 |
| agtacacgta | tggtttatat | gctactgcca | gatgaattta | gtgcacagct | gtcctccaaa | 1620 |
| cacacaaata | cacaaactca | tgcgcataca | tacaatccag | agttgtctct | cctactcata | 1680 |
| gaatgagggt | cgtatttcct | tttttttgag | acggagcttc | tctatcacc | aggctggagt | 1740 |
| gcagtggcgc | gatctcggct | cactgcaacc | tccatctccc | gggttcaagc | gattctcatg | 1800 |
| cctcagcctc | ctgagtagct | ggaattacag | gcacccacca | ccacaccag | ctaatttttg | 1860 |
| tattttttta | gtagagtcgg | ggtatcacca | tattggccag | gctgggtctg | aactcctgac | 1920 |
| gtcaagtgat | ccacctacct | cggcctccca | aagtgtctgc | attgtaggca | tgagccacgg | 1980 |
| cggccagccc | agctttttct | cataactctc | aactctttgc | agtcaggcag | ttctcagagc | 2040 |
| taattagggc | atttcatgtc | acagtataag | tttgggtatg | tttttctatt | gcttaaggaa | 2100 |
| aagcaagata | gtaacgtata | atactttttg | tccaaaagtg | caagatattt | tggtctgtga | 2160 |
| gtctcatagg | agcccctaga | aataaatata | gtttgccttt | taactgttag | aaactgcagc | 2220 |
| actctgagtg | tcctatgccc | aaagaatggc | cttctcttgg | ttgcgtcaac | atagcaggct | 2280 |
| tgcttctttc | tgccctcagg | ctttacatgt | gctgtttccc | cagcctgaaa | ccctgtcccc | 2340 |
| ttgttcttgt | cttcccatgg | ctgctgtctc | tcctgttttt | gggtgtatct | gaaatgtcac | 2400 |
| ctcctcagtc | taaggaaact | ccccacact | caccctgggc | tctgtggagt | gctttctcac | 2460 |
| ggctataatg | agcatttcat | acagtttcat | ttgtttgcat | ttttattgat | ctgtttgttc | 2520 |
| caactgacag | cttccacttt | agattttgga | tttcaacttt | tttgtccccg | gtcttcgggt | 2700 |
| ttgttttgtt | gttgcttaat | attaacaaca | taaaaatttt | tttaaattct | tttcttggca | 2760 |
| gttatctatg | tcaagcagta | gccgcattgt | gacccatgac | atccccataa | aggtgatccc | 2820 |
| taggaaattg | tggaaggact | tacaagaacc | gggtgtccca | gatcctgatg | taggtgatgc | 2880 |
| ctgcagtcct | gctgtacacc | ccacattaaa | tggtcatgact | tgaattctct | agtttttagtt | 2940 |
| gtagtcttgc | agtatatttt | atttttaaa | gatacttaac | gaaaacatta | gattattttgc | 3000 |
| cttttgttat | ttacataaag | catcttaaaa | atgttgcata | tgatagaaat | gtcatgccc | 3060 |

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|---------------|------|
| cctatatgtta | gaaaatgtct | cgctcagtaa | catcacttaa | aacacaaatg | atacttttgg | 3120 |
| aggacaatta | gtattttatta | gtattcttgg | ccttagacac | caatttgggt | ttcacaggac | 3180 |
| ttgatctttt | cctcagccgg | tcaggagcga | tatctggatg | tgcacgaaag | ccaagaagag | 3240 |
| aagaatttca | tggcttaggg | ctaacatggg | gtaacggtca | tgccgatggg | taaccctaga | 3300 |
| gctcctgaaa | gtaaagatga | tgccaaaggg | cccatttcct | cttgctcaca | at ttgttttaa | 3360 |
| gaagaaaagta | cagaaatatg | ctgggtaaaa | taattacttg | acttttacta | gatggcacct | 3420 |
| acactgattt | tgaaaaagcc | tgtgttttat | agagcactct | tggtaacagt | ctcagatgtg | 3480 |
| atgcagtgc | tgtctgccat | gtttttgtac | agagcatgga | aaagggccct | gaatcatatgg | 3540 |
| tgtaaatgtc | ccttagagga | gggcctcctg | ctgattgcct | gagttatat | ccccctggac | 3600 |
| caatataggg | gcatctcagc | tgaagtaccc | tattccttct | tgagccaaaa | tgagctccac | 3660 |
| agggacatgg | ttgctgaggt | aaccagaggg | aggcattcca | ttcttttaatt | ttgcttgagc | 3720 |
| atccttgagt | tagtgaaata | gaattgggtt | tctttttata | tttttaaaag | aactttattc | 3780 |
| agaaaattgt | aaaatagtat | cccatagttt | ttgagcatgc | atgtgttcta | gagttagtta | 3840 |
| tggggccctt | gtcattacta | gagtatatta | atatttttaa | tacttgtgct | tttttctcat | 3900 |
| tggttttgta | ggttagtatt | tatttaccag | tcttgaagac | tatgaagagt | gttgtggaaa | 3960 |
| aaatgaaaaa | catcagcaat | caccttgtaa | gtcacaactt | ctttagaaaa | gaactctgaa | 4020 |
| gtatttgggt | ggacggcgtg | ggttctccag | ctcaccctgc | agcagtcctt | gcaggctgggc | 4080 |
| acctcctaac | cgagttccca | cttatgagga | cctggcctgg | tgttgagaac | ctgcagattg | 4140 |
| ctagttggat | ttagaaacct | attccaatac | ttttcaactc | taattctttg | aggaaagctt | 4200 |
| ttataattgc | ctttaatctg | cctgtttttc | ctcttatatt | ttgtatgaaa | cattgtatct | 4260 |
| ttcttttttt | tttttttttt | tgagacagag | tctcactctg | tcgcccaggg | tggagtgcaa | 4320 |
| tggcgccatc | tcacctcact | gtaagctccg | cctcccgggt | tcatgccatt | ctcccacctc | 4380 |
| agcctcccga | gtagctggga | ctacaggcgc | ctgccaccat | gcctggctaa | ttttttgttt | 4440 |
| cgtattttta | gtacagcagg | ggtttcaccg | tgttagccag | gatggtctcg | atctcctgac | 4500 |
| ctcgtggctc | gcccgcctag | gcccctccaa | gtactgggat | tacaggcgtg | agccaccgcg | 4560 |
| cccggctgga | acattgtatc | ttttactctg | taactgtccc | gtatttttct | gtgagtcact | 4620 |
| gatatgactg | acagttagtt | tggagtttcc | tgtctgcgtg | ccaagtgtct | ttcagtgagc | 4680 |
| cagggacaaa | gatatgccac | accatagcag | cctttattcc | aagcacacct | cacaccaagc | 4740 |
| tagggggcac | ttttatattt | ctgtttattt | tctgtttatt | ttgtggaagt | ctcctatggc | 4800 |
| cacatggctc | gaaatgttac | agtgtgtgac | agtggtggga | aatgtgtagg | ttatcctcat | 4860 |
| tcatacctgg | ggttatttgt | aattcttcct | tcactcactg | cccctccctc | ctccccctgc | 4920 |
| tccctccat | cctgtctcaa | aaaacacctt | tggttatgtc | cctgaatctt | ctaaaaacca | 4980 |
| ctgtcccact | gatgaagcat | aaacttttga | tcttgacagt | gtaccaggcc | accttttatag | 5040 |
| ccacatctct | gttgtattgc | cacacctctc | ctgcagaacg | aggctgggtt | ctggttattcc | 5100 |
| cccacaatgc | ctcttctttt | ttgttcagtt | tctttgccat | ttgacacatg | gctcttcttc | 5160 |
| tccatctccc | tggaaaggcac | ttagccattc | tcattgcttca | tcacagacct | ttccccacca | 5220 |
| cccctctgga | agctcctcca | tggagctgag | ctgtccagtg | tacatggtaa | atcacctgct | 5280 |
| aagatctctg | aagggtctcg | gaaccaccag | cttcttgata | aaggaaacct | catcttaatc | 5340 |
| atcttttgtg | cccagctgcc | cagtgtggga | ttgccactca | gtaggcgaca | ataagtgttg | 5400 |
| catggatctg | gaacaaaatt | tagcttcaag | aggctcttga | aatcacaaaa | gtattttgaa | 5460 |
| gcttagaaaa | tgtacatttg | actgtttttt | tctagagttc | tgcacactaa | gagcaatgct | 5520 |
| gtcattggac | ctgggttaact | caaagctttt | ccttcataac | ttaatctata | aaatctgttt | 5580 |
| tccatgaagc | agtgtgcact | gtgctgacgt | tgggtgcacc | tgtgactgca | gtgatgctga | 5640 |
| tccagtgtgc | aggctggctt | catctgggga | tacctggggg | acttccagag | aaattccagag | 5700 |
| aggcccagga | gagaaaagac | agggtctgta | attgaaggat | ggcatttggt | tgttctttct | 5760 |
| gttcaatgaa | aatgagtcag | caaggtagag | aggtagaagg | gtagcttaga | atcatcagag | 5820 |
| gtgttttgtt | ttctcttttt | tggagttaa | aaaaacatag | aaatattgtg | gagaggctac | 5880 |
| tacgatctgg | aattactaaa | tggaaagtta | tcaagttact | gtagcaaagt | acataatgag | 5940 |
| gtcttctctg | tattccagaa | ttctgtatct | gaatattaca | ggcagtagaa | ttaaggaaaa | 6000 |
| tgggtagact | taacacacta | aaaatgccca | ccttcccatt | agagatgcc | agttacttcc | 6060 |
| tttcattaaa | tgcgaggtgt | gactgattgg | tgggttgta | tgtgactcat | gcaggagcag | 6120 |
| aaaaagaagc | aagaactgga | gggaattgac | atcatgttct | aagacatttg | ttctaagttc | 6180 |
| taccatgcgt | gtgaatcccc | tggaaatctg | ttaaagtgca | ggttctgatt | tgggaggtct | 6240 |
| gagctggagc | ctgaggctct | gtttctgacc | agctcctggg | agatgtcgat | gctgcctgtc | 6300 |
| ttcagaccac | atcatgtagc | agtactttgt | gatgtgtgcc | tgtattactc | cgtttttcacg | 6360 |
| ctgctaaaaa | gatattacct | gagaccaggt | aattttataa | caaaagaggt | ttaattgact | 6420 |
| cacagtcctg | tatagctgag | gaggcctcag | gaaacttaca | gtcatgacag | aaggcaaagg | 6480 |
| ggaagcaagg | cacgtcttaa | catggcagct | ggagagagaa | gaacacagga | aaaactgccca</ | |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|-------|
| atattgtact | tcaaatgtta | tctgagaaac | ggctctgcag | ggcacctaa | tgatagaaac | 6780 |
| cagagtctat | gtttaggagt | catgatatgg | aagaggggag | tcattggagc | cacatacctg | 6840 |
| ggttcagctc | caggctgcgc | tgtgcagtga | gtaccctagt | gctggatact | accccaaagt | 6900 |
| gggataacag | tgcagctatg | acaggggctt | cgctcagttt | taaaaattta | gagataaatt | 6960 |
| ttactagggtg | cccagtatag | tcagcattct | ataaacaata | gttgactatt | ttaaggaaat | 7020 |
| cattgaaaga | tcttaccctg | atacttaaga | aatcaagtgt | gttggttgtg | ataatatccc | 7080 |
| aaataactga | atcttaaaat | agacatgagt | gaccagtgtt | cagagaatta | gttggttgtt | 7140 |
| agtttcttca | gtaagtattg | acttaaggcc | accatgtgct | aggcaccagg | tgttaatggg | 7200 |
| taggaggggag | ttggaatcta | atgttctgtt | actgagattc | ttaggaattt | gaagaaaaca | 7260 |
| caagagaaca | tttaagcctg | aagtgcattc | aggcccattg | caagttgcat | ttttaagtaa | 7320 |
| gtattttatt | atcttatatct | aaaaccattg | cttttcaaaa | caatgggaat | ttacagatct | 7380 |
| tgggtgtgtg | gttggttggg | acaaatgagc | taaggtcagt | tgtagcctt | agccccacta | 7440 |
| agcagctctag | catattcaca | aagattgttt | tatatatttt | atttcagtca | actattgttc | 7500 |
| cagattgtag | gaaaacgggt | taggaaatat | aacaatatat | ttttttggat | taatgaaaga | 7560 |
| aaaggggtga | aatgagtat | ttctcattca | aagtagatta | tacaacagg | aagtttgggg | 7620 |
| cactattttt | ctattaatgt | gaaaagctca | gaaataagag | ctcacccaaa | ttagaaaaac | 7680 |
| tttggttctg | gaatgaaaac | tattcagagt | tcaccaattt | taaggaataa | gaacaaggaa | 7740 |
| cactaaattg | tattcagtaa | acatgaacac | tgatacagag | ccgtgcagac | agagtgcctt | 7800 |
| ctctgttttc | tttctgtgac | actgtgagga | tggaaatggc | ctaaataaga | ccagttgcta | 7860 |
| gggtggcact | ttctagtact | agatggcaaa | atgctatcca | gcagactaca | cactggcctt | 7920 |
| ccagagacct | cctaggcttt | aacattgggc | agatatcaac | atcaaaaaga | gaaataacag | 7980 |
| gtactgggtc | ttttaggagg | aaatttcatt | gtaggtgcgg | gagtggaaca | ggataggtta | 8040 |
| gcaaaacctc | aaaccatact | gtggcatatg | cttcacttct | aggttccatc | caattaaaag | 8100 |
| aactgattgg | ttgttggggg | gggtagagga | gcttcaaagg | aaaggagtcc | cttgtgacct | 8160 |
| gtggagacag | tccccgggca | gcaagagcag | gagtagaaga | ggggtgcccc | atgggtatatg | 8220 |
| aggggatggc | agaagtctgg | tagcctgggc | gtgtggagtt | tggctcagcc | atcctcagtc | 8280 |
| ctggtaaccc | aacagcagcc | ccagaccctt | ctggatttgg | acatttcatt | ttccaacatg | 8340 |
| tgagtttatt | ttctaaataa | atggctatgt | tctcatgaga | ttctgaaggc | cttataagtca | 8400 |
| tattaaatgt | gtgtttatga | caaatgggtt | atcttatatt | tataaaaaata | agacactgat | 8460 |
| ttccacattc | ttctcatttt | cccccttctc | gttttgaat | ggttatatta | tgtctacatc | 8520 |
| atcagagcat | aaaattttat | tactacacgt | tattctgtcc | tcttcattcc | tgttgtttag | 8580 |
| ttttgggtct | aaagggtcaaa | ataaggctca | cactgtttat | gctgtaaact | ctccaatgat | 8640 |
| ttttttgggt | attaaaagcc | tattctctag | catatcactc | aagaaggact | cacaggaata | 8700 |
| ggatttcatt | ggttatcatg | tgtttataat | gtcagtttgg | ctcactgcac | tgcattgtct | 8760 |
| gctgggtgat | attattgcta | tcaaaaagaa | tgactccatt | ctgattttgt | ttcacagctt | 8820 |
| ggattttatt | atttgaaagt | ggggactaaa | taccctgggg | atctttccca | tttttctttc | 8880 |
| aatccaattg | tcttgacctt | ccggggctcag | ttttcccagg | tgtgtgggtg | gtcctttcaa | 8940 |
| tatgtgggcc | gaactcttca | ttcacttccg | gaaagttttg | agctgtagtt | gatagcattt | 9000 |
| cttttccagt | gctttgtttt | tcttctggga | ctcagagggc | ttggatcttc | tccactgtct | 9060 |
| ttattatatt | ctgtcagatc | cttttaactc | tttgtttctg | tttggtaaat | tttatctttc | 9120 |
| tcctttccat | cccagtttct | cttactatct | tctctgtggg | gcctatttgc | tctagtcttc | 9180 |
| cttctaaact | agtttctgtt | tctgaaattt | ttccttatgt | ttctaattac | ttcctgtgct | 9240 |
| gtcagctgtg | ttttatgtgc | gtgctctctg | gtcatctcat | gtctgagctt | ccctaattct | 9300 |
| gatttatgtt | gttgtgtcat | agcgtctatt | attgttcatt | tctctttttt | tttttttttt | 9360 |
| ttttttgaga | cagagtctcg | ctcttttcacc | cagggtggag | tgcagtggcg | caatctcggc | 9420 |
| tactgcaag | ttccgcctcc | cgggttccatg | ccattctctc | gcctcagcct | cccagtagc | 9480 |
| tgggactaca | ggcgcccgcc | accacgccc | gctaattttt | tgtattttta | gtagagacgg | 9540 |
| ggtttcaccg | tgtagccag | gatgggtctt | atctcctgac | ctcgtgatcc | gcccgcctcg | 9600 |
| gcctcccaa | gtgctgggat | tacaagcgag | agccaccg | cccggctggg | ttttctgggt | 9660 |
| cttttaggag | gaagtttcat | tgtaggagt | aaagtggacc | aaaatagttt | tctaatttaa | 9720 |
| tgactctaga | attctctatt | ctttgtaacc | acaaaatatt | aaaacatgca | tcctcaccac | 9780 |
| atccccagga | ctttctgaga | tctgtccctc | tttttccctc | atttaaagtt | tcattccctt | 9840 |
| ttttttgccc | aagggtgccc | ttctgtcttag | ttgaggctct | tacttcccgt | ggttccctct | 9900 |
| cagtgcagga | ctctctcctg | ctgtgagggg | gttctcatca | gtctccacca | gccctcccta | 9960 |
| gagccctgcc | cttgtgctgc | tgtagtctcc | tggcaagtcc | tctcggagtt | ccacctgttt | 10020 |
| tcacatcttc | actgagttct | tcattccggg | agggcaggc | ggggacttcc | cctttgagat | 10080 |
| ttttgggaga | tttctgagtt | cttggctctt | gggccttatc | ttctcacttt | ccctgatagc | 10140 |
| acgggggtct | cagtgtgctc | tgaggtgttt | tgaggttttg | taggggtact | tgtcatctgg | 10200 |
| ttgtgtgaaa | gctgttgccc | atggagtttt | tttctttttg | gcttcccttt | ctaagactat | 10260 |
| gtaaaatact | caatttgcag | gttattgaag | caaacctaga | tggagaattg | aatttgaaaa | 10320 |
| tagaaactga | attagtatgt | gttacaactc | attttaaaga | tcttggaat | cctccattag | 10380 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| gtaagtttttc | tagtggggtta | tatttttgctt | tggataagtt | aattgttttca | gataacctac | 10440 |
| ctggttagagt | ctcttcatgt | aaaaagggtg | aaattcagtt | gactttgttt | catgcttggg | 10500 |
| tgaagaacaa | aggaattgag | actggactat | gtatccctgt | ggtgtagtgg | ggcagtttagc | 10560 |
| caccaggggg | agaagctgtg | ccaccaagta | gctgacagat | ctgtgcaggg | tctccatcct | 10620 |
| ctgtagaatt | cggatcaagt | tacataacct | ccaagatccc | ttccagctat | tcaattcctg | 10680 |
| tcctactcct | aaagattttct | atttctcacc | tggcatggat | tcagaaaggt | agatacattt | 10740 |
| gttcttatat | tctcctcctt | cagttacttc | catatgtatg | aaattagtgt | agcagatgca | 10800 |
| aaactgtttc | acttgatcac | atttcttatc | tcatacaagg | taataaggga | cgatagagtc | 10860 |
| agttcagcaa | gtggggagag | aggggacggt | tggacagttt | ggtgagttat | aagccaagag | 10920 |
| ggggttagaa | tcattggctgg | aaagtggcag | ctgcacagta | gcaggggctg | cctgagcagg | 10980 |
| aaagcaggtg | aaggaccagg | ggagaaacac | ctggggatga | tgagaaaatc | atttttatgat | 11040 |
| acataagtg | gccagaacca | ataaaatcgg | ccctagtcac | atttaagtta | ctacgagtct | 11100 |
| gcttgaatat | aaacacagat | tttagcatag | agttggaaag | aatttttact | ttctagttaa | 11160 |
| gagcatcctg | ctccagcaga | gtgaaatcca | tacggttatg | cctttgataa | tattgtgtaa | 11220 |
| agcgattcat | tctgatgtca | ctcattttgt | ttcttttaat | aaacataagg | tgggacttat | 11280 |
| ctttgggtact | ttctcagagg | tagaaaggat | gttttctttt | tttttttaat | tccactccag | 11340 |
| aatgacaggc | cttgtattag | ttaatgtata | tatttttact | cttaaaatac | atagtaagta | 11400 |
| caaataaata | aaatttttctt | tgacctgaag | agggagattg | agttatattt | caagtcccct | 11460 |
| gtaaataaag | atgccttgga | aattatcata | gtatttttaa | tagttaggac | ctaattgctta | 11520 |
| atgaatgaca | acattttaca | gttgcaatat | ttcttcagga | tgctaaaatc | agtgtctaaag | 11580 |
| tgaatcattt | atttaagtaa | aatgcattga | gtatctccag | gtttcctggt | acgtgggaag | 11640 |
| atgttgtatt | taaattgcatt | cctatcattt | tagcctctga | aagcacccat | gaggacagaa | 11700 |
| acgtggaaca | catggctgaa | gtgcacatag | atattaggaa | gctcctacag | tttcttgctg | 11760 |
| gacaacaagt | aaatcccaca | aaggccttat | gcagtgagtg | tgcttctctg | ttttgttttt | 11820 |
| catattcttt | catattctaa | atactgcagt | caactctagt | ctaacagatt | gcatatagtc | 11880 |
| tcataaatcc | aaaaaaaaaa | aaaaaagctc | aattatgtgg | actttaactt | cctagaacag | 11940 |
| tggggttttt | taaatttttcc | tagattcaga | agtacctaa | gtggcagcag | agaaacaacc | 12000 |
| cctgggcact | ctgttagggc | ctgaaacctg | cagccacact | ggttggtagg | tgggttgtgt | 12060 |
| gctgcctcag | tggccacga | cacctggaga | tgccatcggg | agaatgggtg | cagatcatcc | 12120 |
| caccttctcc | attgtcatct | aatttgacct | gctcagagtg | ccagacacgg | tttggtttgg | 12180 |
| atttaagttt | tcccttgtga | tgtcttgttt | cctttctgtg | gctatgctgg | cctgcatctg | 12240 |
| ctgccccata | tctgtccctt | ggctgtctgt | tgttaacagt | tgcttcttga | ttctggctgg | 12300 |
| gccccatctt | gtgaggtcac | acacctgtct | cagcactctt | catctactga | ccacacatga | 12360 |
| gaaaggcatt | acctgccaa | agcttttcaa | ggcatttttg | tcaccttact | actgaaatca | 12420 |
| cagcaacctg | aaagcgactg | catcctggat | ttgaagttcc | acgttttgta | gcatagctcc | 12480 |
| caggctgagc | tgagagggag | gttgagccaa | cactgcacct | catccccctt | agatctgcag | 12540 |
| tgtgctgtag | agaaggaaca | gaagattcta | ggtggcaatg | tcaaggacca | gcccttttga | 12600 |
| atgagagaca | tgaagagaat | cagaagagac | catgggaggg | gcaatgggtg | tttggaattt | 12660 |
| ggggaagggt | tcacacagtt | ggagtgtgg | gcacagaagg | agatatcgcc | agagaagcag | 12720 |
| ctctgagggg | agagatggag | aagctagact | aggccagatc | atggggagtt | ttggggtgag | 12780 |
| gtacctgtgc | tgcattttta | ggaactttga | catggacgat | gtcatatttc | tagggctgag | 12840 |
| catagtggga | gctgtgtggc | agtgcagggt | ccttaaagggt | gcttctgaga | acctcgatgt | 12900 |
| gcatggagat | cgctgaagg | tcatgtaaag | ggactcctta | ttcatagttt | gggctgggcc | 12960 |
| tcatggctgc | acttctccca | agctcctgta | caatgcccag | acccttggtc | ctgacaagca | 13020 |
| cagtgtgaat | ggtgagagag | tgaaataccc | ctcctgtctg | cagagtgtgg | aaacacaggg | 13080 |
| tgtggggggg | ccctgcgctg | cacaacatca | gtctttgaac | ttggtatttt | ggggactttc | 13140 |
| tgaatccaag | gctgttgagg | aacatggaag | agttcttatc | aaaggtgggt | gactaagcca | 13200 |
| agtgtcttcc | caacattcac | tttgggtgtc | ccacgtgtag | cagagaaaagg | aagaccagca | 13260 |
| aattgtgatg | tagcaaaaa | ttttttttaa | acaccgtggg | ttgaacttct | cataccttct | 13320 |
| taacttccca | aagccccctt | tctgtctctg | ttagtctcct | tcaggtgtcg | gctcaattgt | 13380 |
| cccctcctct | agctaggtcc | tgccaccttc | agtctctgcc | tctcctgtgc | ccttgccacac | 13440 |
| ctctcctaaa | gaatgtttgt | ctcctgcttg | tcctttctgg | tcctttcccc | aacctcccat | 13500 |
| ctcctgggat | tggcctctct | gcagcctgct | cacacatggg | ttcttgtcac | tcactcatat | 13560 |
| ctgctggaga | gctatcctcg | gctgctgtgc | tgagctcccc | gagctctcgg | tggttgtcac | 13620 |
| actgtgtgct | cctgccacc | ctcatgtgct | ctttacttcc | ctgcttggtt | gcatgcctga | 13680 |
| tgccttggat | tttagccatc | acctatggcc | ctcacgggat | tggcaggacc | gttgagatgc | 13740 |
| agggatccat | cccatgtagc | agtgtgtgac | acagcctgcc | ccagtggttg | ggggatcctg | 13800 |
| gctcttggct | cttctcagca | cagttcctcc | actcactggg | gaggagctgc | tcttcgctgc | 13860 |
| agaaggatgc | tcattgtgggt | gaatgtgggt | tgccaggaag | ccagcctgct | gggtgttttg | 13920 |
| ccaagggtct | gggcgccttc | acttttcttc | tcctcgcaca | gggagccgcc | agtgtctggg | 13980 |
| ccgtgatgta | gcctcagctg | tggcagtgag | agtgagagac | tgtggtctct | gcagctgcct | 14040 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| caggggaagac | agatgcctaa | aacaggaggt | gcaggctggg | aaggctgttc | tgaaaaagta | 14100 |
| gagatcaaaa | tgtgtgtgct | gcactaggtc | tctaaaatca | tggcttttct | cttcccagat | 14160 |
| atttgtgaata | acaagatggg | gcatttttgat | ctgcttcacg | aagacgtgtc | ccttcagtat | 14220 |
| ttcatccctg | cgctgtccta | gcaccctgtc | gctggagttg | gcatgcagag | actttgtcag | 14280 |
| gatgggagag | gccgcagggt | ttgtgttctg | atcactgggtc | tgtgccctca | cagcaccgca | 14340 |
| catcgacaca | ctgtacttat | ttgtccctct | ctaacatttt | aactaaaagt | tgattcaaca | 14400 |
| acacacagtt | ggataaacat | atcacttcat | gttgctcatg | tctgttttgc | tttgttttta | 14460 |
| agacactgaa | aagaaaagct | agaattttatt | tattcagact | ttaaagaaca | atttctcatt | 14520 |
| gatgtttgtga | aaatcgctcat | gtattttagac | ttggtgtagt | agccagaatt | cgtaaagctg | 14580 |
| ttgcctggga | gcttggtact | ttccctccag | gcagaggctc | tagctcagca | cggcctgtag | 14640 |
| cgcacagtca | gtcttgcat | tcagtgtgtt | caccccgctg | ctcctgcccc | ttggagccca | 14700 |
| gtgacagaaa | gaacagcctc | tgtcaccctg | ccgccactgc | cttggttact | cagagcactg | 14760 |
| tggggtgtca | cagctgcagc | atttggagtc | tctctcttgc | tgaggactca | agcccactg | 14820 |
| agtccactcc | cctcttgatg | cctagagagc | tggcccagcc | aacacagctc | ttagctggga | 14880 |
| gctccttctg | ccattccaac | tagtttcttc | ctggggccag | ttttgggttt | agggttgaat | 14940 |
| tccttatatt | tctttcttcc | acagtgtatc | ggatctgtcg | ttctggaaag | aagacccttc | 15000 |
| tatttagagt | agaaacaaac | gaaacttcta | aggtatcatc | tgtgttaagt | gatgagacca | 15060 |
| tatttctttg | atgtttctga | acatcaaagc | tgattcagta | ctggtagatg | tgctcattct | 15120 |
| ccctgaaaca | tacccatcat | atttcctatt | ataattacat | ctcattgtcc | tgtggagggtg | 15180 |
| gacatcataa | acattatctt | ttgttttctt | gttttgagacg | gtctcattct | 15240 | |
| gtcacccaga | ctggagtgc | gtgccacaat | catggctcac | cgcattgacc | tccttggtct | 15300 |
| aaggcatcct | cccacctcag | cttcctgact | agctgggact | actggtgtgc | accaccacac | 15360 |
| ccagctaatt | ttcaattttt | catagagaca | gggtctcact | gtgttggtcca | ggctgggtctt | 15420 |
| gaactcctgg | gctcaagcca | cccgcccacc | tgggcctccc | aaagtgtctg | gattacaggc | 15480 |
| atcagccatc | acacccatcc | ataaacatta | tattaatgtc | acattacaaa | actgagacct | 15540 |
| aagttgctta | ggataaaaatg | aaattggaag | actagctaac | atgaaaattt | atattttggc | 15600 |
| tttttcatgt | tttttgataa | aaccagtgtg | tttgaatgat | tcttttgatg | tttagtaatg | 15660 |
| gttttttgtt | tgtttttttg | tttttttttt | tgagacggag | tctcactctg | tcgccagtct | 15720 |
| ggagtgtctag | tggcgcgatc | ttggcttact | gcagcctcca | cttcccaagt | tcaagcgatt | 15780 |
| ctcctgcctc | agcctcccga | gtagctggga | ctacaggcgc | atgccaccac | gcccgggctaa | 15840 |
| tttttgtatt | tttagtagag | acggagtgtc | actgtgttgg | ccaggatggt | ctcgatctcg | 15900 |
| acctcgatg | caccacacct | ggcctctcaa | agtgtctggga | ttacaggcgt | gagccaccac | 15960 |
| gcctggccta | tgtttaataa | tgttgaaata | ggatggaata | ttttgttaaa | ttaacatttt | 16020 |
| aaaattagaa | gacaccgttt | taatttttaa | acccttcttc | ctctcattgt | aacgaaatta | 16080 |
| attccagctg | cagtgtgaaa | acttaaaaat | catgatataa | aatgaaacaa | tatctgaaag | 16140 |
| tagttttata | aaactgaaat | tgctgtttaa | gagaatgtgt | tagtgactta | accatttgct | 16200 |
| ctatgtgatg | tttattatca | aatacatata | attttgaaga | ttttaatgaa | tggcttaaga | 16260 |
| ttttatcttt | gtgtagaatg | tggctaaaga | aaccttagtt | gagattcaag | aa | 16312 |

<210> 12239
 <211> 352
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12239 | | | | | | |
| ccacagactt | agagaagggc | acagtgtctg | tttattgaat | gatctacca | ggtaaaattt | 60 |
| tgccgggtca | agaaatagca | atttaatacca | tttaaaggaa | tgaatataat | ttgaaacatt | 120 |
| aacttatttc | aagactaaca | tctcaaagtg | ttgagacctt | tattaaaaga | gctttctgga | 180 |
| ttttgagcat | actttcactg | gctgtgattt | ataagaattt | gtggtttgtg | gagtactgtc | 240 |
| ctaaatgcc | gggtaaaata | aggcagtc | atgccttacc | tcgcctggct | cagggcctca | 300 |
| catcctttt | gtacgcacat | cttttctctt | ctcccttggt | ctgctctccc | gc | 352 |

<210> 12240
 <211> 1306
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|----|
| <400> 12240 | | | | | | |
| gaaacaaaat | gaaatgcaaa | catgctttga | aagagcacag | tcttgtcctg | tccctctgca | 60 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| tccccctctcc | tcattttctaa | tgaaaaaaat | agtctttccct | ttccctgggt | ccttcaacag | 120 |
| tctcttccctt | aggttatttt | tttccctctct | ccttttcctac | tccatccaga | cttccccctg | 180 |
| cctaactctta | aagagatgaa | ttggaagaat | atgcagtcgt | gtcagaagga | tgccattgtc | 240 |
| agttcacaca | ggcagacact | aataggataa | agtattatct | gacttccttt | aagtccagaa | 300 |
| attaagtctt | cttgcaatgg | caatagatta | taacttataa | ccactgtggc | tggcaggctg | 360 |
| cagaaacagg | ctgttagtat | ctgaggcctc | agctccattt | ctgggcctat | tgtgagggat | 420 |
| gcactcagca | ttcctccaaa | cacagctgca | tgatccaggg | aactggcact | tggctcctgg | 480 |
| atggaactgc | ctctgtggag | agctgcctat | aactcattca | gttcacctgc | cgtgggagaa | 540 |
| gctgtctgaa | tggctctaat | gaacctggat | gagtgggcag | gtaaaggag | gaagccagg | 600 |
| tcttgaagac | tgggaagaag | tagcccagg | caaggaaacc | aaactttgca | cagggaaacac | 660 |
| ttagtgtgtg | aaagctcttc | tcagtcatcc | ttgctgactc | attgagcagg | tagtaactta | 720 |
| tctagtgtact | aaatcagcac | cagcttagag | acacagggaa | atgagggttg | agaccttaaa | 780 |
| ggaactgtaa | aagagactac | aaattaagga | gttgccctgg | agaggaaata | tcatgagaaa | 840 |
| tgtaggaag | aaagagccat | cattcttcaa | aatggagggc | ctcatgcagg | atttcctagg | 900 |
| tcctgttatg | gcagatgagt | gtactcaaat | ggggaatatg | ggacaggaaa | cctgatacaa | 960 |
| taattaattg | aagggtattt | ttttattagt | ggggctataa | gaaggtaggt | gggggctggg | 1020 |
| tacagtggct | gacgcctgta | atcccagcac | tttgtgagcc | caaggtaggg | ggattgcctg | 1080 |
| aggctcgggag | tttcagacca | gcctggccag | catggtgaaa | ccccgtctct | actaaaaata | 1140 |
| caaaaattag | ccaggcgtgg | tgggtgcgcac | ctgtaatccc | agcaactcgg | gaagctgacg | 1200 |
| ccaggagaat | cgcttgaacc | cgggagggcg | agggtgcagt | gagccgagat | cacaccactg | 1260 |
| cactccagcc | tgggcaacag | agcaagactc | tctctcaaaa | aaaaaa | | 1306 |

<210> 12241
 <211> 105
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|------------|
| <400> 12241 | |
| ctggaacctg | ggaggcagag |
| ggcaacagag | caagactctg |
| tttgcaagtga | gccgagatca |
| ggccactgca | ctccagcctg |
| tttcaaaaaa | aaaaaaaaaa |
| aaaag | |
| | 60 |
| | 105 |

<210> 12242
 <211> 229
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|------------|
| <400> 12242 | |
| ttctttttaga | atgtttctat |
| aattaaatgt | atgtgataaa |
| gatgggagga | agaggggaca |
| tgagtcaacc | tgggctgcc |
| tgggacttca | cttgaaacca |
| ggtccactct | gttcccaaga |
| ccagtttcag | ggtagacccc |
| cccttgctt | |
| | 60 |
| | 120 |
| | 180 |
| | 229 |

<210> 12243
 <211> 425
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|-------------|
| <400> 12243 | |
| aggtaggagg | gtatgaaaga |
| tgatttaaac | tgtagtaatt |
| gaaagcctaa | gtactatctt |
| catatcaatg | cttccctgct |
| atcatgccat | cgtctcaaat |
| ccccacaggc | ctaggccaaa |
| agacatcact | atcttttattg |
| ctctt | |
| aacaagtaga | tcaagtactg |
| actctagtaa | tgttccctgag |
| ggtccgtcta | gtccccacac |
| atcctttcaa | aactcttttt |
| gctaacttcc | tttgacaaga |
| tctctgactc | actgcaaagg |
| tttatataac | actcttctctc |
| atcctataat | gaacaaacct |
| agtagcctct | agtagcctct |
| gtgggcaaag | |
| cagggatatac | |
| ctgaactgat | |
| tgggaataata | |
| | 60 |
| | 120 |
| | 180 |
| | 240 |
| | 300 |
| | 360 |
| | 420 |
| | 425 |

<210> 12244
<211> 160
<212> DNA
<213> Homo sapiens

<400> 12244
gcctgcctgc ctctgtagac tccacctctg ggggcagggc atagccaaac aaaaggcagc 60
agaaacctct gcagacttaa atgtccctgt ctgacagctt tgaagagagt agtggttctc 120
ccagcatgca gctggagatt tgagaacgga cagactgcct 160

<210> 12245
<211> 2051
<212> DNA
<213> Homo sapiens

<400> 12245
caggagcagg gaagtacagt cctttctatg tgtctgcaag gaggactcac atctttgggtg 60
agcagcactg atgcctgctg caacctggca tcccccttcc tgtctccttt ctttcctgggt 120
ctgtgcagta gtaggggtgta ttagtccatt tttgcactgc aataaaggca tacctgagat 180
tgggtaattt ataaagaaaa gaggtttaat tggcttatgg ttctgcaggc tgtacagggt 240
tctgcttctg gagaggcctc aggaaaactta caatcatggc agaagggtgaa ggggaaacag 300
gcacatctcc acatggctgg caagaaaagg gaagagcaaa gggagagggtg ctacacactt 360
ttaaacaacc agatctcatg agaactctat catgagaaca gtaaggggga agtctgcccc 420
catgattcag tcgccttcca ccaggccccct cctccaacac tggggatttg ggtggggaca 480
cagagccaaa ccatatcata ggggatagga tccttcttat ctgggttctt tgctaccgta 540
attaatccat ccttatagggt tcaattctaa accctgaaga cattagtatt tcccattgcc 600
cttggggatac aaactatttc ccttggacca taaggctctc tccttatcag acaccaccct 660
cccattgatg ccagcctctc tcatactcca ggaggtaaaa agctctcact tctgcctgga 720
ataatcatga cccctggcca cccctctcag ttgccaggcc actctctctg gcctttgaaa 780
ctgtactcgc atgtcctggc ctatccaccc aaactaaagc atgcactgcc tgttcctttc 840
ctttgaccac ttatcacaat ttattttattt attttatttt gtacatttgc ttaatgtctt 900
tttcctccc tggactgttg gttcacctg gttttcgcag ggctgggtgc atagcagggg 960
ctcagtcata ttttttggat gaatgaacaa accctgaaga tgctacatct gactctatat 1020
cttcatttta tccttttcgt atttccctatt acctctaatt tctcttccct gcacccattt 1080
ctattttatt catcccagtt tacctcctgc tgccagatta attttcctaa tgcacaggct 1140
ctatcatatc atgagtttct cattgctaca tatgactaat ttgccaatat ttttgcacat 1200
cagaatgtgt atcactttga ggctgggtct gtgtttgttt tagtttagga aaagctgttc 1260
agattgtctg taaatccgta tggggatcct tgcataggat tttaaagcag ccacacatct 1320
tgtacaaaat gtataagatt aattttctat gttaggacca tttgttttca ccaattccat 1380
agagctccaa tgtgtaaaag aagacactga tctaactctt gtgttaaata tttagtaact 1440
catttatctg gaagaaagca aaacaaaaca aaaatacaag gaataaaaat cactgggagt 1500
gcttttcatt cactgaataa tgagttttgc aaggagcacg tggatgggtga cattatatct 1560
tttacatctt tattttctgt ttcttttttg actccttatc agtgaattta tcttatttta 1620
tacttttact ttctatttct ttcttgactc tttgttgggtg aattggtagc aagagactta 1680
ctgtctgatac agaactttga atcttcctgc ctctctttct ttgaggttga cagggataaa 1740
gataattaag atagcgcttg ggtgtgatga cactggaaga caggctgggt cagggcctgt 1800
agtagagact tccccctct attgaatgtt aatctgaaag tgaatctgaa agcagatggt 1860
catgaactac ccagggtctc cattaagccc atgaagttaa ttttaaaact cttaaaatag 1920
attgagattc aaattgagat tcatgtctat tttttaaaca ttgtgtctta acaaagtaga 1980
tgttcagtc tacaagttagg caaatgttct aaggaaagat gtttaccatg ctaagttaaa 2040
aaaaaaaaa a 2051

<210> 12246
<211> 2051
<212> DNA
<213> Homo sapiens

<400> 12246
caggagcagg gaagtacagt cctttctatg tgtctgcaag gaggactcac atctttgggtg 60

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agcagcactg | atgcctgctg | caacctggca | tcccccttcc | tgtctccttt | ctttcctggg | 120 |
| ctgtgcagta | gtaggggtga | ttagtccatt | tttgcactgc | aataaaggca | tacctgagat | 180 |
| tgggtaattt | ataaagaaaa | gaggtttaat | tggcttatgg | ttctgcaggc | tgtacagggt | 240 |
| tctgcttctg | gagaggcctc | aggaaactta | caatcatggc | agaagggtga | ggggaaacag | 300 |
| gcacatctcc | acatggctgg | caagaaaagg | gaagagcaaa | gggagagggtg | ctacacactt | 360 |
| ttaaacaacc | agatctcatg | agaactctat | catgagaaca | gtaaggggga | agtctgcccc | 420 |
| catgattcag | tcgccttcca | ccaggccctt | cctccaacac | tggggatttg | ggtgggggaca | 480 |
| cagagccaaa | ccatatcata | ggggatagga | tccttcttat | ctgggttctt | tgctaccgta | 540 |
| attaatccat | ccttataggt | tcaattctaa | accctgaaga | catttagtatt | tcccattgcc | 600 |
| cttggggatac | aaactatttc | ccttggacca | taaggctctc | tccttatcag | acaccacctt | 660 |
| cccattgtat | ccagcctctc | tcatactcca | ggaggtaaaa | agctctcact | tctgcctgga | 720 |
| ataatcatga | cccctggcca | cccctctcag | ttgcagggcc | actctctctg | gcctttgaaa | 780 |
| ctgtactcgc | atgtctgggc | ctatccaccc | aaactaaagc | atgcactgcc | tgttcctttc | 840 |
| ctttgaccac | ttatcacaat | ttattttatt | attttatttt | gtacatttgc | ttaatgtctt | 900 |
| tttccctccc | tggactgttg | gttcaccgtg | gttttctgcag | ggcctgggtg | atagcagggg | 960 |
| ctcagtcata | ttttttggat | gaatgaacaa | accctgaaga | tgctacatct | gactctatat | 1020 |
| cttcatttta | tccttttctg | atttcctatt | acctctaatt | tctcttccct | gcacccattt | 1080 |
| ctattttatt | catcccagtt | tacctcctgc | tgccagatta | attttcctaa | tgcacaggct | 1140 |
| ctatcatatc | atgagtttct | cattgctaca | tatgactaat | ttgccaatat | ttttgcacat | 1200 |
| cagaatgtgt | atcactttga | ggctggttct | gtgtttggtt | tagtttagga | aaagctgttc | 1260 |
| agattgtctg | taaatccgta | tggggatcct | tgcataggat | tttaaagcag | ccacacatct | 1320 |
| tgtacaaaat | gtataagatt | aattttctat | gttaggacca | tttgttttca | ccaattccat | 1380 |
| agagctccaa | tgtgtaaaag | aagacactga | tctaactctt | gtgttaaata | tttagtaact | 1440 |
| catttatctg | gaagaaaagca | aaacaaaaca | aaaatacaag | gaataaaaat | cactgggagt | 1500 |
| gcttttccatt | cactgaataa | tgagttttgc | aaggagcacg | tggatgggtga | cattatatct | 1560 |
| tttacatctt | tatttttctgt | ttcttttttg | actccttatc | agtgaattta | tcttatttta | 1620 |
| tacttttact | ttctattttct | ttcttgactc | tttggtgggtg | aattggtagc | aagagactta | 1680 |
| ctgtctgatc | agaactttga | atcttctctg | ctctctttct | ttgaggttga | cagggataaa | 1740 |
| gataaataag | atagcgcttg | ggtgtgatga | cactggaaga | caggctgggt | cagggcctgt | 1800 |
| agtagagact | ttccccctct | attgaatggt | aatctgaaag | tgaatctgaa | agcagatggt | 1860 |
| catgaactac | ccagggtctc | cattaagccc | atgaagttta | ttttaaaaact | cttaaaaatag | 1920 |
| attgagattc | aaattgagat | tcattgtctat | tttttaaaaca | ttgtgtctta | acaaagtaga | 1980 |
| tgttcagtc | tacagttagg | caaatgttct | aaggaaagat | gtttaccatg | ctaagttaaa | 2040 |
| aaaaaaaaaa | a | | | | | 2051 |

<210> 12247
 <211> 8041
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|--------------|------|
| <400> 12247 | | | | | | |
| aacaggttgt | aaaaaatgta | tttgtttaact | ctgtgcacaa | acgtttttata | ctaaataaat | 60 |
| atcaaactac | atctttctcaa | agatgtttat | atattttctta | ggtcacttcc | atatatatatta | 120 |
| tgtatagtga | aaccattttat | acaaaagcaat | gacttaggca | atgcaaccct | agttttgttaa | 180 |
| accattttccc | ctgttttttat | ttaaaaatga | taaggttgtg | cttctgtata | aagtttgttac | 240 |
| atctagcaat | gtaaaataact | gacacatttaa | aaaaaaacaaa | aagtagaaaac | tcaattctttt | 300 |
| tgattcagtg | ctcttgtgtt | tttaaaaaag | gaacaaaaaag | taatgcaaga | ctcaaaattt | 360 |
| tggagtgggt | ggcgtgcctc | tcttcatttt | acttttttgac | tggctgcctg | tatgccgatg | 420 |
| atgatgtagc | tgagctgttt | gtgctgctgc | tgctgccata | gccatttgat | gctgcaagaa | 480 |
| tcgcaactgc | tgcaaaaagg | agggaaaaaaa | atcgagttaa | gttaaattgca | ggcagggtgta | 540 |
| gaaagggtgct | tttcctgagt | gacgaaaacaa | cacaactgaa | aaagggagaa | agcaccaaga | 600 |
| taacaaaaaag | ggactataacc | acattgagac | aatgcacagt | caaacagcac | cagtgggcaca | 660 |
| gaagcctgct | aagggtcttta | aaaatgattc | ttggcaaact | tcaaaattat | ttgttacttt | 720 |
| gccctggccag | tctatatattg | agtaactcag | caacttcagt | taccattttg | ttgtataatg | 780 |
| atggtttata | gcaatataaaa | acaaccctga | atatcaagat | agtcaactat | aatatgctga | 840 |
| ctttccttcc | taaaattatg | gtataaacatt | tttctaaata | aacagggtatg | acatttacta | 900 |
| ataggaacac | ttttctgcag | taaaatatta | gaaagttaac | aattggcact | tacaactgtc | 960 |
| tttcaaaaata | tactgcatac | tagaaaaatg | tatgttaatg | tgccaccagc | acttcatgaa | 1020 |
| aatttttatag | agtatggctt | aaatatacaa | aatatattca | gtgctccaag | ttgactggct | 1080 |
| aaaatgtcag | acttttaaaat | ttgctaaatt | atttaccat | tactgtacag | tcttaaagac | 1140 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agtaaaataa | aactaaagca | agttatTTTTg | aggtactTTTT | ggagcctgag | tatcttttaaa | 1200 |
| atgtaatcag | agtgaagtTg | ctggattact | tgtatctgtt | gctgctgctg | ttaaaggcag | 1260 |
| aggaaagctg | gaatctctgc | tgaggaaagg | tttgctcagg | tctgttctcg | gcagagccaa | 1320 |
| gctgagacaa | cactacagag | aggagaaggg | gaaagcaggc | cagtcaaaaa | gtttgaaggc | 1380 |
| taccaggggt | agaaaaggac | aacatagaaa | atgaaataat | agaaaagtta | gcagtatgat | 1440 |
| taatcttaag | tatcaaatac | tagacatttc | agaataaatt | tagtatatgg | tctcctgtta | 1500 |
| gttgggggta | ccactgataa | tggaaactttc | tggacacaaa | aagagaaggg | agtgcattat | 1560 |
| gtatcaaagc | actgaacctc | tcttctcttg | catctgtata | aaatttgata | ttgatgctat | 1620 |
| tttgtttaga | agagtatat | atTTTTgaaa | taaaaccaac | aaagtaggag | aaggggagatg | 1680 |
| gaagaaatcc | aaactattgt | aacaacaaa | ctggtagaca | gacaattgct | ttaaacaaaa | 1740 |
| gatgctgcaa | tgaatatcag | actactctac | taacaataaa | ggtggtgaac | tgagactaag | 1800 |
| catgttttgt | tattttttta | gctgaatggg | accacagtaa | tcagttcaac | actcatttta | 1860 |
| catatgggga | agtttgaagg | ccaacatgat | ttaaagtact | cagactcaaa | gttaagtatg | 1920 |
| gcagtcctgt | gctaagaaca | ttctcatgat | tttttttcaga | ctagagttgt | ttccactaaa | 1980 |
| ttatactaca | gctatttttc | gaaattcaca | attggtctga | taaaggtata | tgattatata | 2040 |
| aacttctatt | tggaaattca | ctacctctaa | attggaactt | tatatgtaag | gataactgac | 2100 |
| ttccaaaata | aagattatca | ttctaaaaga | cttctaaagg | catcatagta | agcccacagt | 2160 |
| gataagatgc | tgacaacaca | gtcactcatt | caatcctcaa | actcctatca | tagttttctt | 2220 |
| atacatatgg | cttactcttt | taattaagtg | tgaagttaga | attatcgtct | tcaactgaca | 2280 |
| ggaagttaga | attatcgtct | tcaactgaca | ggaagttaga | attatcgtct | tcaactgaca | 2340 |
| ggataatcat | taagagtaac | ctttagtcca | ccatttactg | ctggaagtgt | tgagaagtaa | 2400 |
| tttaattcttt | tttttttaaat | gataaaagtg | acttacagaa | gttatgctat | tgaccattaa | 2460 |
| gacttaagtc | atttatgcaa | ctacaagtta | ccagaacgag | acaaaagatt | atgcaatcta | 2520 |
| gaaaaattca | gtcttaaccc | aggaaaacaa | aaaagttatt | aattaagata | actattggca | 2580 |
| aacactgaaa | acagctctgg | taacctagta | aagtggataa | ttattttgcc | agtaaactgt | 2640 |
| aacaaggaaa | cacaactgtg | gtaattatgt | taagtcaaag | ctcttaatcc | actatcaatg | 2700 |
| aaaaaaaaatc | tcagccatca | atcaatttaa | tagtttacac | attatagctt | tactttttcc | 2760 |
| tgtttactgg | ttgcaagggg | aggaaaagaa | aataatttaa | gcggtgagat | cccaaataga | 2820 |
| ttagatatgt | ttagttaatt | cagcatataa | agttatgaag | atacctacca | gctgcctgtg | 2880 |
| actgcataaa | acttctact | ccagtaagtg | taataacagc | agcttgctga | gcagataagg | 2940 |
| cctgttcttg | actgggtgaa | ccttgctcag | aacctgtaac | aaaaaaataa | taaatgactt | 3000 |
| gtacaagaaa | gaaaaacaaa | tttgagctgg | tgaaaagaaa | tcagtatttt | ttcctatatg | 3060 |
| aaagaaagca | gtattagact | agtcttgtaa | aaagaataac | aaggaaaata | cttcaaaggt | 3120 |
| atttagaata | agcaagaata | aatttatggg | atttgaacaa | agaaaacttc | atttttcagt | 3180 |
| gcatctgtat | ttattgttta | atgctacct | gataacgcct | aaggctttta | taaagcttca | 3240 |
| ctgaaacaat | tttttaaagc | ttaaaacacc | ctttgtaaca | taaacatagt | gctggaactt | 3300 |
| ttagtcagca | gactaagtca | agaaaaggaa | aataaaggta | tatagatttt | ataggaaaaa | 3360 |
| ataaaatgtc | ttattttcaa | atggcacaca | tgtctatatg | gtagaaaacc | ctaagcaatc | 3420 |
| tccaaacagc | tcctagaagt | agtaagtcca | gtaagagggc | acaaaacaag | accaatatac | 3480 |
| aaaaatcaac | actatatata | ctagtaatat | acatgtgaaa | actgaaataa | aaaaaatacc | 3540 |
| attcacaatt | actcaaaaaa | aaagagaaaa | gcttaggtat | taatcttaag | tctaagaaaa | 3600 |
| catatacagg | gcttggtatac | caaaaactac | aaaacattga | ctttggtcta | gataaggaca | 3660 |
| tatactatgt | tcatgtactg | gaagactcac | atcataaaga | tggcagttct | tcccccaaac | 3720 |
| tgatcaacaa | gtttaactca | attcttttag | aaatgctggc | aaggtttttg | tagatataga | 3780 |
| caagatgact | ttaaaatgta | tatggaaaagg | tagagaacct | acattagcta | caacaatttt | 3840 |
| gaaaaatggg | atggggagaaa | acactgccca | attttaagac | actacaatga | acaagacagt | 3900 |
| gtgggtattgg | ctgaaggaga | gacacataga | ttaatgaaac | agaacaggga | acctagaaat | 3960 |
| agaccactc | aaatagacc | aactgacttt | taacaaatgt | gcagaagtaa | ttcaattcag | 4020 |
| aaagaatagc | tgtttttttt | ctttgttgtt | gttttctttt | ttttcaacaa | atgggtattga | 4080 |
| aacaattgga | tactgatagg | aaaacaaaaa | caaacaaaaa | caaaacacgg | acctaagttg | 4140 |
| cacatcttgt | acaaaaatta | actgaaaatg | gatcatggat | tcaaaataag | aaactataaa | 4200 |
| actgttagaa | aaaaaacaca | ggagaaaatc | tttgggacct | agagctagggt | aaagagttcc | 4260 |
| gagacatgaa | aactagagga | tattccataa | agaaaagata | ctgttaactt | ggacttcagc | 4320 |
| aaaattaaaa | acttttgctc | tgcaaaaagac | atcctttggg | accacctaaa | atagtgtctg | 4380 |
| aagtaacatt | tcagtatata | attgcaagcc | aaacatttca | aaagttacat | ttatcttgag | 4440 |
| gggatctccc | tggatatata | agattggaca | aaagagcaca | gagctgaaag | gaggacacat | 4500 |
| tattgaattt | gggaacccag | tcatgaaatg | aacaacagaa | taaggcagac | cacatcacca | 4560 |
| ccataacgga | gctatgataa | aacaaacaaa | aaaactcaaa | atgcaaaaaa | actacaggtg | 4620 |
| atatcaattt | cccccaaaag | cactccacaa | acctaattgt | gactataagc | caccaccaca | 4680 |
| aatggaatat | tcaaacaaag | aggaataatg | attaaacaaa | catcttgaag | aagaaaacaa | 4740 |
| atactaagaa | ataaaaaggac | tcaggctaaa | actaaaagga | tgaaaaaaga | cgtactaagc | 4800 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| taacgttaat | caaaagaaa | aaacaagaaa | tattaccaga | gataaagaag | gtcattttatt | 4860 |
| aatgataagg | ggtaaattaa | tcaaggaaa | aacaatccta | aatgtatatg | cacctaacaa | 4920 |
| tatgggctca | aaaaacaacc | tttagcaaaa | ggaaaatag | aaattttcag | ttttggttga | 4980 |
| agacttcaac | acttctctca | gtaactgata | aaacatacag | aaagaaaagg | atatagaaga | 5040 |
| cctgaatgat | gccatcaaat | accttgatct | aatatggaac | actcctaaca | gcagaatata | 5100 |
| cattttttca | gccatatatg | gagtattcat | caagacagat | cacgttctca | agcattaaac | 5160 |
| aaacctcaac | aaacttaaaa | gaaccaaaaa | tatgttttca | gatcacagtg | gattttaaact | 5220 |
| agaaatcaac | tgcagaaaaga | tatttggaag | attcccaagt | atttggaagt | caaacatatc | 5280 |
| taaataactg | atttaagagg | aatccataag | aaaattctgt | ggaacaaaat | gaaggcacag | 5340 |
| catatcaaaa | tttgtggaaa | gtggcttaag | cagtactgag | aaggaaatgt | gtaacattaa | 5400 |
| ttgttttatt | tagaaaagaa | tgacctcaac | acaataatct | aagcttccac | ttacgaaact | 5460 |
| acaaactatc | atccaagaaa | acattccaga | aataaagaag | tgactctaca | cattaaaagg | 5520 |
| atccacagga | aaaacatgga | aaacatcaatt | ctgacacaca | caccagtga | aatattagac | 5580 |
| aagcattcag | ggcctctagg | caaactgctt | aaataaaactt | acaagagcaa | gataattaga | 5640 |
| ctggcatcag | atttctcaaa | aacatataaa | gcaagtcaac | agtaggaaga | gttcttaata | 5700 |
| aattttaaagg | agacctaaaa | ctagagaaca | tttataagaa | aacaagtga | aatgcttcag | 5760 |
| gacattggat | ttggcaatga | tcttcaatat | gataccaaaa | gcacaggcaa | gaaaagtaaa | 5820 |
| aagagaaaat | gaactacatt | aaaataaaaa | aaaaaaaaaac | ttctgtgcaa | tggatgcaat | 5880 |
| caagagtga | aagacaacaa | atggggagaaa | atatctggaa | atcaaacatc | tgatatatgt | 5940 |
| gtatatgaag | aatgaagaac | tcctacaatt | caacaacaaa | aattaatctg | aaaaaaaaaaa | 6000 |
| aatgggcaag | ggaccctaac | agacttttct | ccaagatagg | tacacaaatg | gccaacatgc | 6060 |
| atatgaaaag | atgtctccaca | ccactagtca | ttaaggaaat | gccaatcaaa | accacaatgg | 6120 |
| gattatcacc | tcacacccat | taggaaggct | gcttaaaaaa | aaaaaaaaaaa | aattccctaa | 6180 |
| agaccctaac | accaccagaa | aataacaaga | gttggcgagg | atttggacaa | atcgagatct | 6240 |
| ctgtatgttg | ttgatgggaa | ttaggtaaaa | tggtacagcc | actatggaaa | acagtatgat | 6300 |
| gcttcttaaa | aaattaaaaa | ttaccacatg | aaccagcaat | ccaacttctg | ggtatatatc | 6360 |
| cagaagagtt | gaagacaggg | tctcaaagag | ataattgtac | actcacactc | acactagcat | 6420 |
| tatttacaat | agccgaaaagg | tgggaagatac | ccaagtatcc | atcagtggat | gaatggataa | 6480 |
| acaaaatatg | gtatatacaa | gtattattca | ccatgaaaaa | ggaaggatgat | tctgacacat | 6540 |
| gctataaaat | gaatgaccct | tgaagacttt | atgccaaagt | acataagtca | aacacaaaag | 6600 |
| gacaaataac | tatataactg | cacttatatg | aggatatctg | aatagtcaaa | ctcactactaa | 6660 |
| cataaagtag | aatagtggcc | gagggggagga | gttgttattt | accagatata | gttttcagttt | 6720 |
| tgcaagatga | aaaagttcta | taatagaaat | ctgttgcata | acaatgtgaa | tacacttaac | 6780 |
| actgctgaat | tgcacactta | agaagttaaa | atggtaagtt | ttggccaggc | acggtggctc | 6840 |
| atgcctgtaa | tcccagcagt | ctgggaggct | gaggtgggct | gatcacgagg | tcaggagatc | 6900 |
| aagactatcc | taacatggtg | aaactccgtc | tctactaaaa | atacaaaaaa | aaaattagtc | 6960 |
| gggctggtg | gcacatgtct | gtagcgacag | ctactcggga | ggctgaggca | ggagaatcgc | 7020 |
| ttcaaccag | gaggtggagg | ttgcagtga | ccaagattgt | gccattgcac | tccagcctgg | 7080 |
| gcaacagcgc | gagactctgt | ctcaaaaaaa | aaaaaaaagt | taaaatggta | aattttatgt | 7140 |
| gtaccttaaa | attatttttt | taaaagaaaa | atcaaagatt | ttatatctag | ccaagtaatc | 7200 |
| tttaatgtgt | ttagaatgaa | aaaaacagta | agtttttaat | gtgcccttcc | tgaggactct | 7260 |
| attagaggat | gagctttatc | caaccaagac | ctgactgggg | gaaactgggc | aaaaggacta | 7320 |
| atgggtgaata | tttcatataa | tttgtgagat | agagaaaactc | tggatttggg | actcaggaat | 7380 |
| caatattttt | ttaattttcc | agatgactcc | agtgtaccca | aagtttagaa | acacttgatc | 7440 |
| ttccttcttc | tactgtcatt | tattgcaatt | cttattcaat | ttctttccct | ttggcagtg | 7500 |
| acacatttgt | ttttgtctgt | gttcccactg | ccctacattt | tatgataata | gggatatctt | 7560 |
| tattccaata | gcaacaaaat | cctaaaaaca | gaaagataat | gatggggtag | aaaatacatg | 7620 |
| agtgatagg | gcacaaagac | ctaggtttga | atctctggct | ctgccactca | ctgtatggct | 7680 |
| aagagcaagc | catttatctg | gatctcaatc | atctatgcaa | gatgcagggtg | ataccatcta | 7740 |
| ttcagtatgg | tatgactgtt | ttattaggaa | tacacaccca | atagctgatt | gctactattg | 7800 |
| ttaataaaaa | cagtacagga | aatgtttaca | ctaacaaagc | aaatgaagta | tgcttggaat | 7860 |
| ataccaaaaa | atgtttataa | ttcgatgtaa | aagcatatgg | aaggctagaa | aatccatacc | 7920 |
| tgctcccctg | gctgttgagg | actacaagtt | gtgggctgct | gaggttggtg | tggtgtaaac | 7980 |
| tgggagagct | gctgttgctg | ctgctgcaga | gtgttaaaaa | taagtgaacc | acctggaagc | 8040 |
| t | | | | | | 8041 |

<210> 12248
 <211> 1465
 <212> DNA
 <213> Homo sapiens

<400> 12248

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|------|
| gtttgggtct | agttcacatg | ctcatccctg | gacctaccac | tgcgaccgtg | gtatcaggca | 60 |
| ctctgggtca | gccaaaggta | tatgcccattg | tctctgtgtg | gagtgggtga | aggaggagga | 120 |
| agtaaagatg | atgcagtttg | atataatagc | aaataacca | ggggaatagc | aataaccaag | 180 |
| ggaaagggaa | gctgaacatt | tatgatattcc | tgtagtcaat | accccttaa | tttatttttt | 240 |
| gcatggctta | aagccagggc | tcttattttcc | catttggggc | tttctgtttt | tttcttgagc | 300 |
| ttttaatgaa | cgtttacatt | tcatcagttt | ggatttcttt | gctgccagtg | ttggatattt | 360 |
| gcttttttaa | aaacaaacca | aaaaactatc | atttaataata | tccacctttc | tacttagact | 420 |
| ccatcttgaa | aagaattata | ttggcccatt | ggacacattt | tctccaaga | atttaaactg | 480 |
| tgaagtaagg | gatgaaagga | tatgtgtcaa | tgtttgaagg | accaggcagg | gctgtggcat | 540 |
| gtctttgcct | gtgattccta | tcaattattg | tatcctgggt | tcagttttct | agttctcttt | 600 |
| tgagtgggtt | ttatattctt | tcaggaaagt | ttatttttgc | taataatggc | cagtgtcaat | 660 |
| ttccagtgtc | cacaagcaag | aacctatgctt | tcagaagggt | ggtataagaa | ggctactgcc | 720 |
| attctcatga | gacttgtagg | actctttgac | agtagagaaa | tcacagtaga | aaaatacaac | 780 |
| ttctattgtt | tgccctgtat | gttgcttccc | tttgatagca | gggactcaca | ttaaatgaag | 840 |
| ccaagaagtt | acattagagc | ctttgctgcc | caatatgata | ttactagtca | cagatgactg | 900 |
| ttgaaacctt | aatttaaatt | agaattttta | aaaattaaaa | ttcagtttct | tcagtcacat | 960 |
| gaagtacatt | tcaagtgtgc | actagcaaca | tgttgctagt | gactatcata | ttggaaggca | 1020 |
| cagattgtag | aatattttcca | ccatcaaaga | aagttctatc | agacaacact | gttggagtat | 1080 |
| aaactcaagg | gtaggcattc | tgctctgttt | attttctgat | gtatccacaa | cacttagaat | 1140 |
| gggcttagca | tgtataggta | ctcaataaat | atttgttgaa | tgctgaaata | gcataatttg | 1200 |
| ggaggccaag | gcgggcagat | tacctgaggt | cgggagttca | agaccagcct | gccaacatg | 1260 |
| gagaaactcc | gtctctacta | aaaatacaaa | aaattagccg | ggcgtgggtg | tggtatgcctg | 1320 |
| taatccagc | tacttgagag | gctgaggcag | gagaatcact | tgaaccagc | aggcggaggt | 1380 |
| tgcggtgagc | tgagatcaca | ccattgcact | ccagcctggg | caacaagagt | gaaactccat | 1440 |
| ctctaaaaaa | agaaaaaaa | aaaaa | | | | 1465 |

<210> 12249

<211> 1466

<212> DNA

<213> Homo sapiens

<400> 12249

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|------|
| gtttgggtct | agttcacatg | ctcatccctg | gacctaccac | tgcgaccgtg | gtatcaggca | 60 |
| ctctgggtca | gccaaaggta | tatgcccattg | tctctgtgtg | gagtgggtga | aggaggagga | 120 |
| agtaaagatg | atgcagtttg | atataatagc | aaataacca | ggggaatagc | aataaccaag | 180 |
| ggaaagggaa | gctgaacatt | tatgatattcc | tgtagtcaat | accccttaa | tttatttttt | 240 |
| gcatggctta | aagccagggc | tcttattttcc | catttggggc | tttctgtttt | tttcttgagc | 300 |
| ttttaatgaa | cgtttacatt | tcatcagttt | ggatttcttt | gctgccagtg | ttggatattt | 360 |
| gcttttttaa | aaacaaacca | aaaaactatc | atttaataata | tccacctttc | tacttagact | 420 |
| ccatcttgaa | aagaattata | ttggcccatt | ggacacattt | tctccaaga | atttaaactg | 480 |
| tgaagtaagg | gatgaaagga | tatgtgtcaa | tgtttgaagg | accaggcagg | gctgtggcat | 540 |
| gtctttgcct | gtgattccta | tcaattattg | tatcctgggt | tcagttttct | agttctcttt | 600 |
| tgagtgggtt | cttatattct | ttcaggaaag | tttatttttg | ctaataatgg | ccagtgtcaa | 660 |
| tttccagtgc | tcacaagcaa | gaacctatgct | ttcagaagggt | tggtataaga | aggctactgc | 720 |
| cattctcatg | agacttgtag | gactctttga | cagttagagaa | atcacagtag | aaaaatacaa | 780 |
| cttctattgt | ttgcccgtga | tgttgcttcc | ctttgatagc | agggactcac | attaaatgaa | 840 |
| gccaagaagt | tacattagag | cctttgctgc | ccaatatgat | attactagtc | acagatgact | 900 |
| gttgaaacct | aaatttaaatt | tagaatttta | aaaaattaaa | attcagtttc | ttcagtcaca | 960 |
| tgaagtacat | ttcaagtgtg | cactagcaac | atgttgctag | tgactatcat | attggaaggc | 1020 |
| acagattgta | gaatatttcc | accatcaaag | aaagttctat | cagacaacac | tggtggagta | 1080 |
| taaactcaag | ggtaggcatt | ctgtccttgt | tattttctga | tgtatccaca | acacttagaa | 1140 |
| tgggcttagc | atgtataggt | actcaataaa | tatttgttga | atgtcgaaat | agcatatatt | 1200 |
| gggaggccaa | ggcgggcaga | ttacctgagg | tcgggagttc | aagaccagcc | tgcccaacat | 1260 |
| ggagaaactc | cgctcttact | aaaaatacaa | aaaattagcc | gggcgtgggtg | tggtatgcct | 1320 |
| gtaatcccag | ctacttgaga | ggctgaggca | ggagaatcac | ttgaaccag | gaggcggagg | 1380 |
| ttgcggtgag | ctgagatcac | accattgcac | tccagcctgg | gcaacaagag | tgaaactcca | 1440 |
| tctctaaaaa | aagaaaaaaa | aaaaa | | | | 1466 |

<210> 12250
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 12250
 gaggcggagg ttgcggtgag ccgagatcgg gccattgcac tccagcctgg gcaacaagag 60
 cgaaactcca tctcaaaaaa aaaaaaaaaa aaaaaaaaaa aa 102

<210> 12251
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 12251
 ttccctatac tttgaaggga acttgaaata gttccatctt aatggtattc caaagtttcc 60
 atttaaactt atttatagct acattttctg ttgtaacttg gccctccagt tcacctacta 120
 tttctgcctt cataattact tcaaaagtat aaagtacttg atctcatagt taacttttcc 180
 cccaacttac tcatccttca cctctgatt tctccctatc acctactcat taaaactttt 240
 aacagtttcc actgtagcct ctggaatccc tattctgata ccaataactt tttttgcaat 300
 ctcaacattt ttttaatgcc tctccccctg c 331

<210> 12252
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 12252
 ttccctatac tttgaaggga acttgaaata gttccatctt aatggtattc caaagtttcc 60
 atttaaactt atttatagct acattttctg ttgtaacttg gccctccagt tcacctacta 120
 tttctgcctt cataattact tcaaaagtat aaagtacttg atctcatagt taacttttcc 180
 cccaacttac tcatccttca cctctgatt tctccctatc acctactcat taaaactttt 240
 aacagtttcc actgtagcct ctggaatccc tattctgata ccaataactt tttttgcaat 300
 ctcaacattt ttttaatgcc tctccccctg c 331

<210> 12253
 <211> 88
 <212> DNA
 <213> Homo sapiens

<400> 12253
 ggaggcggag gttacagtga gccaaagattg tgccactgca ctccagcctg ggtgacagag 60
 tgagactctg tcttaaaaaa aaaaaaaaaa 88

<210> 12254
 <211> 2331
 <212> DNA
 <213> Homo sapiens

<400> 12254
 gaaggatatag gggaaaagggt aggggtgaga gttatcagtc tggtagagc tgggctaaac 60
 atttagtctt accatcagtt taaaagcacc tggaccagtt agttgctgta caggcaaagt 120
 caaaggggaga agcctggcct ctctctactc agtcaagggt catgacttta ggagactgca 180
 atgaaccagg cataccagga aaggaaaagg ttaactgagg ttgaaaaaaa aactttatgt 240
 ggcactttta aacaagcagg ttggtttggc ttgtgtgact atgatggtgc ctgattttga 300
 gcagagcaat ttgtgttgtg acatttttaa atccattctg gcacttggtg atgaatgtgt 360

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|--------------|------|
| tggtctggcag | ctaagaactt | gctagaatgc | aagtatgcaa | gtcttcccca | tttataatcg | 420 |
| acacttcctt | tccaggaaaag | agcctttcta | atctttgaat | cagtggattt | atcaatttgc | 480 |
| ataaaaatag | ccatcctcaa | tgaacacatt | tatcatctac | cacttaactt | tccttctgtt | 540 |
| aaaaaaaaaa | aaaaagcaga | atcaccttcc | tgtgagtcag | cagctttaaa | ttcagctgtg | 600 |
| ctgggtgaag | ctgttaagg | taggaaggag | ccatcactag | aagggggaga | agcaggaata | 660 |
| aatgatctt | ttctatttcc | atgatttttt | atgtttctgt | ttaaatgggt | aaatacccaa | 720 |
| ttaggttaga | tgctaattaa | atgtaaaatt | actgggctgt | tccaatatgc | atgttaaagt | 780 |
| tgtacttctt | ggttgtttgt | aatttaccta | actcttgaga | gatcatcaga | gcagcccagc | 840 |
| tgagtttaaa | gaaggcttcc | aactgcccag | gatatgcatc | agttcctgaa | caaaaaaaga | 900 |
| acaccccagg | atcaacagaa | gctactatca | aatccttcaa | acactacatg | caccacatgc | 960 |
| tcacatttgt | cctattttttg | ctactattta | tccacaaaaa | agccaagcct | gaactccttc | 1020 |
| ttgaggccaa | aacttaaaaa | tataccaaat | gaatcagttc | aaaattttac | aaatttgggt | 1080 |
| tggtttaatc | ataactgatt | cttcatacta | ttgacaccgt | tgattcttca | cactatagat | 1140 |
| accactcact | aaaattacaa | ctcagtcacc | tcttcccata | taccatattt | cattaaaaatc | 1200 |
| aatgtaagat | aagaaatggg | taccagatgc | catcgtttca | gaccaaacca | tatgtcaaat | 1260 |
| tttgaataaa | cctaacaaca | tctgatttgt | taagtagcat | acctagattt | attaaaaatca | 1320 |
| ctacactcct | ttaatgtctg | taggagaaca | tgcattgcaca | agcacacaca | cgttgtgtgt | 1380 |
| gcattttatat | atatatatat | atatatatat | atatatatat | atgtatatgc | tactgcaaaa | 1440 |
| ttgaagagac | tttaccaagt | tctgtcattg | acagggacat | tatatataaa | gaatatacat | 1500 |
| actgtaattc | acctcatcaa | gagttaattt | tatggccggg | cacagtggct | cacacctgta | 1560 |
| atcctaacac | ttcgggaggc | agatcacttt | gagctcagga | gatttgagac | cagcctgggc | 1620 |
| aacgtggcaa | aaacccatct | ctacagaaaa | atacaaaaaa | gagctgggcg | tggtgactcc | 1680 |
| cgctctgagt | cccagctgta | tacatgggag | gctgaggctg | gaggattgct | tgagccaggt | 1740 |
| agcagagggt | gcagtgaacc | aagattgtac | cagtgcactc | cgccctgggt | gacagagcaa | 1800 |
| gaccttggtt | caaaaaaaaa | aaaaagagtt | aattgtacca | ggaacatgtg | gtgtcaaaat | 1860 |
| ttaaaatatg | tgaactcttt | gacccagcaa | tgctattttc | agggatatat | cctaagatca | 1920 |
| tcaccagcaa | agtatataag | gatgtgcatg | caaaaaatatt | catcatggct | ttctttatatac | 1980 |
| aatgaaaaat | tggaataaaa | cttctcatta | atgggatgct | ggttaaagaa | aatcattact | 2040 |
| gtaatatgca | gccatctaaa | agggttaattt | atatgtatat | atattttacat | aagaaaaccc | 2100 |
| tcattgtcata | ttgctgagta | aaaagaaaaga | tgtcaatgag | tattcatgat | gtgattctat | 2160 |
| ttatccttgc | aaatgggtgga | aattcaatta | tatggtatatt | tctctctttt | ctgtttgttt | 2220 |
| ttcatatatg | tatatatttc | ctttgaaatc | agaaaaaaat | caagctattt | tcattcagagg | 2280 |
| aaaaaaatca | ttactctgta | tttcagtcac | actaaaatag | tcacccaaga | a | 2331 |

<210> 12255
 <211> 2330
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| <400> 12255 | | | | | | |
| gaaggatatag | gggaaaaggt | aggggtgaga | gttatcagtc | tggttagagc | tggtgctaaac | 60 |
| atttagtctt | accatcagtt | taaaagcacc | tggaaccagtt | agttgctgta | caggcaaagt | 120 |
| caaagggaga | agcctggcct | ctctctactc | agtcaagggtt | catgacttta | ggagactgca | 180 |
| atgaaccagg | cataccagga | aaggaaaagg | ttaactgagg | ttgaaaaaaa | aacttttatgt | 240 |
| ggcactttta | aacaagcagg | ttggtttggc | ttgtgtgact | atgatgggtgc | ctgattttga | 300 |
| gcagagcaat | ttgtgtttgtg | acatttttaa | atccattctg | gcacttggtg | atgaatgtgt | 360 |
| tggtctggcag | ctaagaactt | gctagaatgc | aagtatgcaa | gtcttcacca | tttataatcg | 420 |
| acacttcctt | tccaggaaaag | agcctttcta | atctttgaat | cagtggattt | atcaatttgc | 480 |
| ataaaaatatg | ccatcctcaa | tgaacacatt | tatcatctac | cacttaactt | tccttctgtt | 540 |
| aaaaaaaaaaa | aaaaagcaga | atcaccttcc | tgtgagtcag | cagctttaaa | ttcagctgtg | 600 |
| ctgggtgaag | ctgttaagg | taggaaggag | ccatcactag | aagggggaga | agcaggaata | 660 |
| aatgatctt | ttctatttcc | atgatttttt | atgtttctgt | ttaaatgggt | aaatacccaa | 720 |
| ttaggttaga | tgctaattaa | atgtaaaatt | actgggctgt | tccaatatgc | atgttaaagt | 780 |
| tgtacttctt | ggttgtttgt | aatttaccta | actcttgaga | gatcatcaga | gcagcccagc | 840 |
| tgagtttaaa | gaaggcttcc | aactgcccag | gatatgcatc | agttcctgaa | caaaaaaaga | 900 |
| caccccagga | tcaacagaag | ctactatcaa | atccttcaaa | cactacatgc | cccacatgct | 960 |
| cacatttgtc | ctatttttgc | tactatttat | ccacaaaaaa | gccaagcctg | aactccttct | 1020 |
| tgaggccaaa | acttaaaaat | ataccaaatg | aatcagttca | aaattttaca | aaatttgggtt | 1080 |
| ggcttaataca | taactgattc | ttcatactat | tgacaccgtt | gattcttcac | actatagata | 1140 |
| ccactcacta | aaattacaac | tcagtcacct | cttcccata | accatatttc | attaaaaatca | 1200 |

| | | | | | | |
|------------|-------------|------------|-------------|-------------|------------|------|
| atgtaagata | agaaatgggt | accagatgcc | atcgtttcag | accaaaccat | atgtcaaatt | 1260 |
| ttgaataaac | ctaacaacat | ctgattgggt | aagtagcata | cctagattta | ttaaaatcac | 1320 |
| tacactcctt | taatgtctgt | aggagaacat | gcatgcacaa | gcacacacac | gttgtgtgtg | 1380 |
| catttatata | tatatatata | tatatatata | tatatatata | tgtatatgct | actgcaaaat | 1440 |
| tgaagagact | ttaccaagtt | ctgtcattga | cagggacatt | atatataaag | aatatacata | 1500 |
| ctgtaattca | cctcatcaag | agttaatttt | atggccgggc | acagtggctc | acacctgtaa | 1560 |
| tcctaacact | tcgggaggca | gatcactttg | agctcaggag | atttgagacc | agcctgggca | 1620 |
| acgtggcaaa | aacccatctc | tacagaaaaa | tacaaaaatg | agctgggcgt | ggtgactccc | 1680 |
| gcctgtagtc | ccagctgtat | acatgggagg | ctgaggctgg | aggattgctt | gagccaggta | 1740 |
| gcagagggtg | cagtgaagca | agattgtacc | agtgcactcc | gccctgggtg | acagagcaag | 1800 |
| accttgtttc | aaaaaaaaaa | aaaagagtta | attgtaccag | gaacatgtgg | tgtcaaaatt | 1860 |
| taaaatatgt | gaactccttg | accagcaaat | gctattttca | gggatataatc | ctaagatcat | 1920 |
| caccagcaaa | gtatataagg | atgtgcatgc | aaaaatattc | atcatggcct | tctttataca | 1980 |
| atgaaaaatt | ggaaataaac | ttctcattaa | tgggatgctg | gttaaagaaa | atcattactg | 2040 |
| taatatgcag | ccatctaaaa | gggtaattta | tatgtatata | tatttacata | agaaaaccct | 2100 |
| catgtcatat | tgctgagtaa | aaagaaagat | gtcaatgagt | attcatgatg | tgattctatt | 2160 |
| tatccttgca | aatgggtggaa | attcaattat | atgggtatttt | ctctcttttc | tgtttgtttt | 2220 |
| tcatatatgt | atatattttcc | tttgaaatca | gaaaaaaatc | aagctatttt | catcagagga | 2280 |
| aaaaaatcat | tactctgtat | ttcagtcaca | ctaaaaatag | cacccaagaa | | 2330 |

<210> 12256
 <211> 2331
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| <400> 12256 | | | | | | |
| gaaggatatag | gggaaaagggt | aggggtgaga | gttatcagtc | tggttagagc | tgggctaaac | 60 |
| athtagtctt | accatcagtt | taaaagcacc | tggaccagtt | agttgctgta | caggcaaaagt | 120 |
| caaagggaga | agcctggcct | ctctctactc | agtcagggtt | catgacttta | ggagactgca | 180 |
| atgaaccagg | cataccaggga | aaggaaaagg | ttaactgagg | ttgaaaaaaa | aactttatgt | 240 |
| ggcactttta | aacaagcagg | ttggtttggc | ttgtgtgact | atgatgggtg | ctgattttga | 300 |
| gcagagcaat | ttgtgttgtg | acatttttaa | atccattctg | gcacttgggtg | atgaatgtgt | 360 |
| tggctggcag | ctaagaactt | gctagaatgc | aagtatgcaa | gtcttcacca | tttataatcg | 420 |
| acacttcctt | tccaggaaag | agcctttcta | atctttgaat | cagtggattt | atcaatttgc | 480 |
| ataaaatatg | ccatcctcaa | tgaacacatt | tatcatctac | cacttaactt | tccttctgtt | 540 |
| aaaaaaaaaa | aaaaagcaga | atcaccttcc | tgtgagtcag | cagctttaa | ttcagctgtg | 600 |
| ctgggtgaag | ctgttaagggt | taggaaggag | ccatcactag | aagggggaga | agcaggaata | 660 |
| aatgatctt | ttctattttc | atgatttttt | atgtttctgt | ttaaattggt | aaatacccaa | 720 |
| ttagggttaga | tgctaattaa | atgtaaaatt | actgggctgt | tccaatatgc | atgttaaagt | 780 |
| tgtacttctt | ggttgtttgt | aattttacct | actcttgaga | gatcatcaga | gcagcccagc | 840 |
| tgagtttaaa | gaaggcttcc | aactgcccag | gatatgcac | agttcctgaa | caaaaaaaga | 900 |
| acaccccagg | atcaacagaa | gctactatca | aatccttcaa | acactacatg | caccacatgc | 960 |
| tcacatttgt | cctatttttg | ctactattta | tccacaaaaa | agccaagcct | gaactccttc | 1020 |
| ttgaggccaa | aacttaaaaa | tataccaaat | gaatcagttc | aaaattttac | aaattttggt | 1080 |
| tggcttaact | ataactgatt | cttcatacta | ttgacaccgt | tgattcttca | cactatagat | 1140 |
| accactcact | aaaattacaa | ctcagtcacc | tcttcccata | taccataatt | cattaaaaatc | 1200 |
| aatgtaagat | aagaaatggt | taccagatgc | catcgtttca | gaccaaacca | tatgtcaaat | 1260 |
| tttgaataaa | cctaacaaca | tctgattggg | taagtagcat | acctagattt | attaaaaatca | 1320 |
| ctacactcct | ttaatgtctg | taggagaaca | tgcattgcac | agcacacaca | cggtgtgtgt | 1380 |
| gcatttatat | atatatatat | atatatatat | atatatatat | atgtatatgc | tactgcaaaa | 1440 |
| ttgaagagac | tttaccaagt | tctgtcattg | acagggacat | tatatataaa | gaatatacat | 1500 |
| actgtaattc | acctcatcaa | gagtttaatt | tatggccggg | cacagtggct | cacacctgta | 1560 |
| atcctaacac | ttcgggaggc | agatcacttt | gagctcaggga | gatttgagac | cagcctgggc | 1620 |
| acagtggcaa | aaacccatct | ctacagaaaa | atacaaaaaa | gagctgggcg | tggtgactcc | 1680 |
| cgctgtagt | cccagctgta | tacatgggag | gctgaggctg | gaggatttgt | tgagccagggt | 1740 |
| agcagagggt | gcagtgaacc | aagattgtac | cagtgcactc | cgccctgggt | gacagagcaa | 1800 |
| gaccttggtt | caaaaaaaaa | aaaaagagtt | aattgtacca | ggaacatgtg | gtgtcaaaat | 1860 |
| ttaaaatatg | tgaactcttt | gacccagcaa | tgctattttc | agggatatat | cctaagatca | 1920 |
| tcaccagcaa | agtatataag | gatgtgcatg | caaaaaatatt | catcatggct | ttctttatac | 1980 |
| aatgaaaaat | tggaaataaa | cttctcatta | atgggatgct | ggttaaagaa | aatcattact | 2040 |

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|------|
| gtaatatgca | gccatctaaa | agggtaattt | atatgtatat | atattttacat | aagaaaaccc | 2100 |
| tcatgtcata | ttgctgagta | aaaagaaaga | tgtcaatgag | tattcatgat | gtgattctat | 2160 |
| ttatccttgc | aaatgggtgga | aattcaatta | tatgggtattt | tctctctttt | ctgtttgttt | 2220 |
| ttcatatatg | tatatatttc | ctttgaaatc | agaaaaaaat | caagctattt | tcatacagagg | 2280 |
| aaaaaaatca | ttactctgta | tttcagtcac | actaaaaatag | tcaccaaga | a | 2331 |

<210> 12257

<211> 171

<212> DNA

<213> Homo sapiens

<400> 12257

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| caaacaggag | ggctagccca | ggtttgagct | ggacactcca | ctgacagttc | taaagcagaa | 60 |
| aattagggaa | ggaatagtca | ggggccttatc | agctatgcag | tagcttctag | aagtcaacag | 120 |
| ctggctctgg | gagggaaaag | attgagaaaa | acaaaagaaa | taaataagag | c | 171 |

<210> 12258

<211> 171

<212> DNA

<213> Homo sapiens

<400> 12258

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| caaacaggag | ggctagccca | ggtttgagct | ggacactcca | ctgacagttc | taaagcagaa | 60 |
| aattagggaa | ggaatagtca | ggggccttatc | agctatgcag | tagcttctag | aagtcaacag | 120 |
| ctggctctgg | gagggaaaag | attgagaaaa | acaaaagaaa | taaataagag | c | 171 |

<210> 12259

<211> 171

<212> DNA

<213> Homo sapiens

<400> 12259

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| caaacaggag | ggctagccca | ggtttgagct | ggacactcca | ctgacagttc | taaagcagaa | 60 |
| aattagggaa | ggaatagtca | ggggccttatc | agctatgcag | tagcttctag | aagtcaacag | 120 |
| ctggctctgg | gagggaaaag | attgagaaaa | acaaaagaaa | taaataagag | c | 171 |

<210> 12260

<211> 12280

<212> DNA

<213> Homo sapiens

<400> 12260

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-----|
| gatcacaagg | tcaggagatt | gagaccatcc | tggctaacac | agtgaaaccc | cgtctctact | 60 |
| aaaaatacaa | aaaaattagc | cgggctgggt | ggcgggcgcc | tgtagtctca | gctactcggg | 120 |
| aggctgaggc | aggagaatgg | tgtgaacctg | ggaggtggag | cttgcaagtga | gccgagatca | 180 |
| cgccactgca | ctccagcctg | ggcgacagag | cgagactccg | tctcgaaaaa | aaaaaaaaatg | 240 |
| gggaaggaac | catctaggag | ggaacacaa | gagggacggg | ccccagctg | cagatgtgac | 300 |
| agtggatatca | gtctgggcat | cctcagaggg | ccagtaggtg | ggcagggctg | gctgggggca | 360 |
| tgtcctgctt | tatagaagcg | catgtcacaa | cccccataac | tgctgctgcc | ctgccccag | 420 |
| gtgacacgcc | cttcacctca | ccaccagagg | tggacagctg | ccaggggata | gacagtaacc | 480 |
| taccagggtc | cctagctcaa | ggcatgggca | gtgtggccct | gcagatgagg | gcacacctgg | 540 |
| ctgctcacga | caggtgacgc | catgccaccc | tccacagtgt | actgcagtgg | aggtggccca | 600 |
| tgtcgggctg | aggggtccct | gggtggggcag | ggacttcctg | tctggggctc | tccctgcca | 660 |
| gctgaagaca | tggaaatcct | ctgggggtgga | cggtgtgcagc | tgacgcctcg | tccctactgc | 720 |
| agaggaagtt | cgggtgtggtc | ctggatgaga | tcaagccctc | ctcgccccct | gagctccagg | 780 |
| ccgtgcgcac | gtttgctgac | tacctcgccc | acgagagtcg | gaggtgaggc | cccagagaat | 840 |
| gggttgccct | gagggcgccg | gccatcttca | aggcctgttg | gttatgaacc | tgggtgggtg | 900 |

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| ggggcatggc | gtgcagcgca | cagcatccct | cagattaggc | gcctctcccc | tctgtctccc | 960 |
| tgctgctttg | tgcctcagtt | tccctcacct | gcacagcagt | ggggggctgg | tgatggatcc | 1020 |
| tgcttcaaag | gggagggtca | gagacagtgc | tgtgtgtgca | cacgccctca | tggaccacaa | 1080 |
| ggcactctct | gaacctagaa | ctgaaaatat | caattaccga | gcagccctct | gcaacacca | 1140 |
| gagccccaag | acagcccagg | gcgcagcggg | ggcagggccc | tcccatcagt | tttcttattt | 1200 |
| atttatttag | agatggagtc | tcactctgtc | accaggctgg | agttgcagtg | gtgagatctc | 1260 |
| ggctcactgc | aacctctgcc | tcctgggttc | aagtgattct | tgtgcctcag | cctcctgagt | 1320 |
| agctacgact | atagctgcgt | gccaccacgt | ccagctaatt | tttgtatttt | agcagagact | 1380 |
| gggtttcacc | gtgttgccca | gggtgggtct | gaactcctga | gctcaggcgg | tctgcccacc | 1440 |
| tgcctctccc | aaatcctatc | agttttctag | tcccagctag | ttggggagctg | caacctgcca | 1500 |
| gtatctcccc | tggagcccag | tgggagggtg | ggtgaggcca | cgctgtcct | gcccctgagc | 1560 |
| cacaggccag | cgttggtcaa | acgcccattg | gcggcagcca | aggggagagg | gggctgggct | 1620 |
| gtggggaccc | aggaaccttg | ccccctcctg | ctgtggggtc | ggagtgaggg | tctggcatgg | 1680 |
| ggagactgct | gtgatcctgc | tcttccttgg | cccacggagg | cagtgtccca | actaccgcct | 1740 |
| cccttcactc | aaagaaacct | ggggttcctg | ggagctgact | cctgtgcaga | ggcagcatgg | 1800 |
| tggggtgaa | ggtgtccccc | aaaaggtagc | tccatatcct | atcccacatg | cttgtaata | 1860 |
| tgatatcatt | tggaaaaaag | gtctttggcg | atcagattaa | gagataagga | gatgaagaca | 1920 |
| tgctggattt | aggggtgggc | ccaaagccaa | ggacttgtgt | cgttttaaga | gataaaagga | 1980 |
| gggtcgggtg | cagtggctca | tacttggta | cccagcactt | tgggaggacg | aggtgggcag | 2040 |
| atcacctgag | gtcaggagtt | ttcaagacca | gcctggccaa | cgtggtgaaa | ccccatttct | 2100 |
| attaaaaata | cagaattaac | aggatgtgat | gtctgtgatt | ccagctactt | gggaggctga | 2160 |
| ggcaggagaa | tcgcttgaac | ctggcaggca | gaggtgtcag | tgagccaaga | tcgactagt | 2220 |
| gcactccagc | ctgggtgaca | gcgggagact | gtcttaaaaa | aaaaaaaaaa | aaaaggaaag | 2280 |
| aggccacag | agttaagccc | atgtgacaac | agactggagt | gacatgtctg | ctagccaagg | 2340 |
| agcaccacga | gtggccagca | gccaccagag | ctgggagaga | ggcctgggac | ggccttgccc | 2400 |
| tccagctctc | agctggagcc | agccctgcgc | ccaccttgac | ttcagactta | cggcctccag | 2460 |
| agctgtgagg | acgaatccc | tgttgtcctt | aactgcccgc | gctgtggtgc | tttgccacag | 2520 |
| cagctccagg | acattgagac | aggtgacctc | ccagggccac | tgtttctccc | acctgcact | 2580 |
| tacttcacca | gctggagtga | aggcagggaa | ccctgggtcc | cccaggagca | gcagctgctg | 2640 |
| tgagcatcac | agaaaagcag | ccccggagag | caggcggctc | aggcaggggc | ttgtgggtccg | 2700 |
| ttcatctggc | tgcacagccg | cgacctcatt | ggcaggacgc | cccggggaca | aggagcatcc | 2760 |
| attagtaatt | ggttttggtt | ttgattttgt | tttcttgaga | tacggtcttg | ctctgtcggt | 2820 |
| cagcctggca | tacagtggca | caatcttggc | ttactgcagc | cttgatctcc | caggctcaag | 2880 |
| tgatcatccc | acctcagcct | cccgaatagc | tgggactaca | ggcacgcata | accatgcctg | 2940 |
| gctaatttgt | atatttttta | gagatggggg | tttgcctggc | cgggcagctg | ggctcacacc | 3000 |
| tgtaatccca | gcactttggg | aggccgaggc | gggcggtatca | cgaggtcagg | agatggagac | 3060 |
| catcctgggt | aacacgtgaa | accccatctc | tactaaaaat | acaaaaaaaa | ttagccgggc | 3120 |
| atgggtggcg | gtgcctgtag | tcccagctac | tcgggagggt | gaggcgggag | aatggcatga | 3180 |
| acccgggagg | cggagcttgc | agtgaagcaa | gatcgcacca | ctgcactcca | gcctgggcga | 3240 |
| aagtgcgaga | ctccgtctca | aaaaaaaaaa | aagagagatg | gggttttgcc | atgttgccca | 3300 |
| ggctgggtct | aaactcctgg | gctcaagcga | tccgccagct | aattgatttt | gttgctgttg | 3360 |
| cttgtttttg | agatggcttc | cctctgtcac | ccaggctgga | gtgcagaggt | gtgaccacag | 3420 |
| cttaccgcag | cttcaacctc | ccgggctgaa | gccatctctc | tgcctcagcc | tcccaagtag | 3480 |
| ttgggactac | aggcgccacc | agggccagct | gactttctta | cttttttgta | gaaaaagggg | 3540 |
| tctactatg | ttgccccagg | tggctctgaa | ctcctgggct | taagcgatcc | tgcttgggcc | 3600 |
| tcccaaagcg | ctgggggttac | aggtgtgagc | cacagtaccc | ggccccattg | gtaattgtaa | 3660 |
| caccttagga | tgacaacatt | acagtaccaa | cgctacgaca | actggcagtg | tttatacacc | 3720 |
| cttggtgtgct | ggagcctcag | gaagctttgt | aagatggtct | tgggagctcc | ttgtcctctc | 3780 |
| cctgcatgat | ccctgtaaca | tggtccttca | gcacggggaa | acagactcag | acctgaagtc | 3840 |
| acttgctctgt | tggacctggc | actgtggcga | gcctcagtg | gagcctggtt | ggtatcagac | 3900 |
| atgccatgcc | ctcagtgaca | cctcagacac | ggcccttggg | cagacagccc | ccagatgcgc | 3960 |
| gtggatgctt | acggggtcac | agagccacgt | ttgaaccag | agaacacca | cctttggtct | 4020 |
| aggggtggccc | cctcacctgc | cttctctttt | tagctgtctca | atagccatgg | ggaatggagg | 4080 |
| gtctgggtcc | agttagggac | atggaggcat | gggtgacctg | tgccctcgga | gctgagccgg | 4140 |
| tcctcagcct | tgcttgggct | caagcctggc | cctggcccgc | agcacactgg | ccatcttcag | 4200 |
| ggtgcagcca | gcaccttggg | ctctcaggga | ctgagggcag | ctgccctggc | agtgggggtg | 4260 |
| ccccagggct | cccatccttc | tgcacggccc | ctcggcaccc | aggccgacct | cctgctagaa | 4320 |
| gacgtggcct | tgaagcccac | agggttgat | | | | |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gctctgcacc | cccagggcct | ggctcaccct | ctctggacct | gtctgcttcc | aaggaagggg | 4620 |
| accctctgag | gtccccacaga | ggccacccca | gctgtggggtc | gtgagcatct | ctgtcttgca | 4680 |
| gggacagcat | cgtggccgag | ctggaccgag | agatgagcag | gagcgtggac | gtgaccaaca | 4740 |
| ccaccttcc | gctcatggcc | gcctccatct | atctccacga | ccagaaccg | gatgccgccc | 4800 |
| tgcgtgcgct | gcaccagggg | gacagcctgg | agtggtagt | ggcctccctg | ctctggggcc | 4860 |
| agcccaggga | ggcaagtgcc | ccctgccaca | tctccaggct | gcgcacggcc | tcgctggctg | 4920 |
| tcgtcatggg | agcagagaaa | ggtgggtgctg | aaatgaggcc | ctggcctgct | gtccaggctc | 4980 |
| cagctcccc | gcccagtggtg | ggaggcactc | ccatctgctg | accaggctgc | agatccaagg | 5040 |
| acacggtgcc | caggctgcaa | ccctctgttc | ccaagggcag | agcagaaagc | ggctttgtct | 5100 |
| ctgctcgggt | tctgtgtccc | cacccccac | gaagccttct | gtgtctcggc | cctggggcca | 5160 |
| gtctctcagg | cctccccggg | ccccccatac | cggccctcct | ccagggccct | ctgggggttg | 5220 |
| ggtgtggaag | ccctgcaagg | ttggtgcccc | cctccaccct | aggatgtgac | tccgggcat | 5280 |
| gtccaggga | ctggtcacag | aaagtgtgtc | agttcttccc | cgtgagctgt | ccctgcagt | 5340 |
| cctgccttcc | actgtgagtt | gcaagctggg | catttcatgg | tcgctgtgga | tctgtctcca | 5400 |
| tcccacctcc | atccacagag | ggcttagaat | tgcagggcga | gccaggcatg | gtgacatgca | 5460 |
| cctatgtttc | cagctacttg | ggaggcggaa | gcaggagtat | cccttgagtc | tgggaggtgg | 5520 |
| aggctgcagt | gagccgtgat | ggtgccactg | cactccagcc | tgggtggcag | agccagaccc | 5580 |
| tgactcacac | acaaaaaaga | aaataaatag | ggatgtcaca | ctgtcggcga | gccggccgac | 5640 |
| tcggtgctgg | tccaggtgct | ggctcctgtt | ggcaggaana | caagaacaag | aggcctcacg | 5700 |
| agtaattcgt | ggtcacagcc | acctgggggt | gagagggatg | aggggacgag | ggggcctgca | 5760 |
| gagagtgggt | ggccccagg | ctctgtgca | ggtgcagggt | cagggggcggg | tgcgtggccc | 5820 |
| tcctctagg | cctgttcc | gagtggtgat | gctccagggt | tgtcagatcc | gggcaggccc | 5880 |
| ctccatctgg | aagcacagcc | catggaggct | gcttctccag | atgggagggtg | agtgggccc | 5940 |
| ggcctgaaac | cccattcctg | gtacctcccc | cagagctcct | gggctgagg | aagctgagcg | 6000 |
| gtgaaatgtg | ggagttaggg | tgtcctctc | tgtctggcgg | ggctgggtgt | cctaagcaca | 6060 |
| ggacttagga | acatcccaga | cacacacagt | gagccctggg | tgtggagcgg | ccatgcaatg | 6120 |
| tgtctgtggc | gaccgcgtga | ccgccccctc | gccctgtcct | gcagcacagc | catgacagt | 6180 |
| cagatcctgc | tgaagctgga | ccgcctggac | ctcgcgccgt | gagccctcct | gccccctctc | 6240 |
| accgcactg | agccacagcc | cagagcgta | cagccagag | cgtcacagcc | cagagcgtct | 6300 |
| gtggctcgtg | cattactctt | gttgtctttc | ctttccatgg | gggtggcctt | ctgtcgttca | 6360 |
| gcccttccct | gcagtatgtt | gccaggagg | agggccatgg | ctctctgtgc | ctcagtttct | 6420 |
| ctctatgcag | tgggtggcag | gcctctccca | cagggtgagg | gtgggcttca | tggagggaga | 6480 |
| gtggagggtg | tgcctggagc | aacatgttac | ttgaccagct | tgttaactgtg | ccgtggggct | 6540 |
| ggcggggcct | gcacgtggca | tcaccaggtc | ggaggccatg | gctgggggtc | caggactccc | 6600 |
| ctgctgccgt | ttccaaagcc | cctgcctcag | agttgttcac | actgtagtcc | cgttgccctt | 6660 |
| ccctgcgttc | cattcctccat | ggagttagtc | tctcctgagc | tctaccttgt | ggtggccacc | 6720 |
| ctggggggcc | atagctggcc | ccagtcccac | cttcccagg | cctgcacgtg | gtcagacggg | 6780 |
| cagggtggct | cgggcaactta | gtcgtggggt | atgagcatgc | agtggagcac | aaagcagggg | 6840 |
| ccatccccc | gctccgggtg | gccccaaagt | gggacaagg | agggatggcc | aggccagggc | 6900 |
| cctcggccac | tcagccctc | tgtcatctgt | ccccgcccca | ggaaggagct | gaagagaatg | 6960 |
| caggacctgg | acgaggatgc | caccctcacc | cagctcgcca | ctgcctgggt | cagcctggcc | 7020 |
| acggtgagcc | ctaggccatg | aggtgggtgg | gcattgcggg | cacctggctg | agcagggctt | 7080 |
| gtgggcaccc | ccacctgtgc | gtaggctgct | ggccactcca | gtggggctcc | aggatcaggc | 7140 |
| cgtggccct | gccagcctgg | cataactcag | ccttgactcc | attccgggct | tctcacagcc | 7200 |
| aagcgacttg | gccagagcca | gagcgaagag | atggtggggg | cggggacggg | ttcctgagcc | 7260 |
| tgaggcacag | gggtactcga | gggtctgggt | tggcctggca | ggccctcctc | ccctcagggc | 7320 |
| ttcctgggg | tttctgcgac | tcagctttgc | tctccagggt | cctggctcgc | agccagggac | 7380 |
| ggagtccagt | gttcccatag | cagcgggtga | gatgtctcca | gctcccaggc | ctgggcacct | 7440 |
| ccgcccggca | acagccctc | tcctggtttc | tgggacctgg | cccccttctg | agccactctt | 7500 |
| ttgtgtgggc | ctattaaaa | gtgcttctctg | gctggctcga | gtggctcacg | cctgtaatcc | 7560 |
| cagcacttcg | ggaggccgag | gcgggtggat | catgtgaggt | tgggagttct | agaccagcct | 7620 |
| gaccaacatg | gagaaacccc | atctttacca | aaaatacaaa | attagctggg | cttgggtgcca | 7680 |
| tgcacctgta | aaccagcta | ctcaggaggc | tgaggcagga | gaatcgcttg | aaccggggag | 7740 |
| gtggagggtg | cggtgagcca | agatcgcgcc | agtgcactcc | tgcttgagca | acaagagtga | 7800 |
| aactctgaga | aagaaaaaaa | aatgtgctcc | ccgtccctgc | ccgccacggg | gctgaagcct | 7860 |
| caccagaca | gacttccagt | gaccgtctag | tatggtagga | caggccccgg | cagacctatc | 7920 |
| gggtagtttg | ggctgttttc | actgcctggc | ttggcctcag | gctccccctg | caagtgttct | 7980 |
| gctgttctga | gcaagtggac | aggtcagggc | tgctgggtcac | agagctgact | cctcctctc | 8040 |
| tgacgtgctc | agtgaaccag | tggtccccac | tcagacctg | agccagccac | ctgtgcactg | 8100 |
| aggccttgga | agccccagat | tccacctctg | tgtactcagc | actccgggag | ctgggtggga | 8160 |
| ggtggggcag | gaggcggcca | cgagtcttta | ggcccatca | gcagagtaca | agttacgggt | 8220 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| agtcccatg | gcgagtggtc | tgtgccttga | accggggcaca | ccagattcgt | ctctgtgcag | 8280 |
| tgctggagtc | ccccccgcta | ggggaggggg | ctggcggggg | aagggccggg | cagcaggggc | 8340 |
| acaggcaatg | atgcgggacc | ctccctgcag | gggtggtgaga | agctgcagga | tgcctactac | 8400 |
| atcttccagg | agatggctga | caagtgtctg | cccaccctgc | tgctgtctca | tgggcaggcg | 8460 |
| gcctgccaca | tggcccaggg | ccgctgggag | gcccgtgagg | gcctgtctga | ggaggcgcta | 8520 |
| gacaaggtag | gcacaagcct | gtcccagagt | ggggacggag | ggaaggccag | gcggccagag | 8580 |
| gggtgggtca | gggaggacag | aaacaagtgt | agcagagacc | ccctgggtgt | gcgtgtggcc | 8640 |
| ccacagggtc | tctaaggccc | agtcagcagc | gagatccaca | aagcagggat | ctcacctgca | 8700 |
| aagaaatcca | gattccggcc | tcacagaaat | ggggcatctg | ggcagcctgg | gcctcagtgg | 8760 |
| tctgagccgt | ccttgtttgtc | acctcagctg | cctggcccgg | gacctgcaag | tgggaccctt | 8820 |
| cacctgagta | catactcagt | attggagaga | cactccccgt | acttatgtag | gggagagtgt | 8880 |
| gctgtggaca | ggagctcttc | gttgagagag | cgctgcctgc | ccagggtggc | tgcagtcctc | 8940 |
| tcctgcctga | tgctgtcagt | ctttctcttc | tctcttcttc | ccttctcttc | tctcttcttc | 9000 |
| ccttctcttc | tctcttcttc | ctttctcttc | cttcttcttc | cttcttcttc | cttcttcttc | 9060 |
| cttcttcttc | tctcttcttc | tctcttcttc | tctcttcttc | ccttctcttc | cttcttcttc | 9120 |
| tttttttttg | agatggagtc | tcactctgtc | acccaggctg | cagtgcagtg | gtgtgatctc | 9180 |
| agctcaatgc | aacctccgcc | tcctgggttc | aagtgattct | tttgccctcag | cctcccaagt | 9240 |
| agctgggatt | acaggcggtc | gccaccacgc | ctggctaatt | tttgtatttt | tagtagagac | 9300 |
| gggtgttttc | catgttggtc | aggctgggtc | caaactcctg | acctcaggtg | atccaccgcg | 9360 |
| ctcagcctgc | caaagtgtctg | ggattatagg | cgtagaccac | cagcctggc | catctgcagt | 9420 |
| ctttatgaag | agtttatgtt | atgttaaatt | aaaaatatat | atatattttg | taaagacggg | 9480 |
| gttgttcttg | ctgtgttgcc | caggttgggtc | tcgaactcct | ggcctcaagt | gatcgtccca | 9540 |
| cctcagcctc | ccaaagcatt | aggattatag | gtgtgagcca | ccatgcttgg | tggatttttt | 9600 |
| tttttttttt | ttttgagatg | gagtcttgc | ctgtcgccca | ggctggagtg | cagtgggtgtg | 9660 |
| atctcggtc | actgcaagct | ctgcctcctg | ggttcatgcc | attctcctgc | ctcagcctcc | 9720 |
| cgagtagctg | ggactacagg | cgcccaccac | catgcccagc | taattttttg | tatttttagt | 9780 |
| agagatgggg | ttttgctgtg | ttagccagga | tggctctcaat | ctcctgacct | catgatgctg | 9840 |
| cccaccttgg | actcccaaag | tactggatta | caggcgtgag | ccactgtgcc | cagcctggat | 9900 |
| tattattttt | ataatcagaa | aggacatcaa | agcttttttc | attttggaga | aacgaatttt | 9960 |
| gggggggttt | ttgtttgttt | tttgaaacgg | tatgccacca | tgctgggcta | atttttgtat | 10020 |
| tttttgtag | aaatgggggtc | tcactgtgtt | gtccaggtta | gtcctgaact | cctgggctca | 10080 |
| aacaattctc | accctccttg | gccttctaaa | gtgctgggat | gatagacatg | cgccagtgcg | 10140 |
| cccagctgag | aaacagtttt | aatctagtga | caaacactgg | tgaagccctc | ctccctgtct | 10200 |
| gactttccag | gggctgagtt | atcatcagaa | agttgtttgc | agagcggggc | tggccaaggg | 10260 |
| gtatcagggt | ggccccatca | caggccgggt | actgctcctc | ctgagcaggg | tccatcttta | 10320 |
| gctctgagca | gtcagggtca | gtcaggaact | cccagcctga | tgtgcaatct | cagacaggct | 10380 |
| gtgtgtccct | cgctgcccc | ggggcaagac | tggcgccctc | ctccaccacc | ctgcccctcc | 10440 |
| ctgccacctg | agaacacttg | gatgcactgt | gtgttcatgg | ccgcatcctc | tgggggcttt | 10500 |
| tgttacacct | ctcaggtgac | acgttccgtg | actcaccagt | tagatgactc | ccttctgtcc | 10560 |
| ttgtctcttg | aaacaccacc | tggggctggc | tggccgtgcc | ccttggccct | ggtggcctcc | 10620 |
| ccgtgggtgt | ggtcaccctg | cattcttgc | gggttttggg | aggcactcag | gtccccccac | 10680 |
| ttcccttttg | agccacctca | tggctgtctc | tgtgagcgca | agctggtgtc | ccccttcatg | 10740 |
| gtggagactg | aggctcagaa | aagtccgggtc | tgcaaaaagg | tgccctgcca | tgggcccggc | 10800 |
| tgggcagggtc | gggctctggg | cgcatectcg | ttgggtgtgtc | tgtgtctcaa | gcagacacca | 10860 |
| gggctctggc | tgggtctcct | ggcctagatg | tttcttaggg | tcctgtgtgc | tgggagccta | 10920 |
| gagtgagtga | gtcaggcaag | gtcccctgcc | gaggtctcct | tcaaggctcc | ttgggagctg | 10980 |
| gtgcagggtg | ggcaggtctg | cccatggcct | cggggctcgt | tgtacagcag | gagttgaggc | 11040 |
| catctgggtc | tgggccccat | ggctttgaga | tgtgtgggac | aaatacaacc | ttcccaagtc | 11100 |
| tctgtaaaca | aggggtcgta | ccccaggctg | gactacagat | ggggaaaactg | aggctcagcg | 11160 |
| aggcggtgtg | ccccttggca | ccgtatcatc | tgagatctcc | accttgcaga | gcggtgggcg | 11220 |
| gtgtcagtc | cacccacctc | ctgaggaggt | gacctgtgtg | ggtgtgcct | gaggtggggg | 11280 |
| tgacgggcag | gcatgggggc | tggagtgggt | gacctgcct | ccccgtgtct | gcctgtgtct | 11340 |
| ccagatagt | ggctacccag | agacgtgggt | caacctcate | gtcctgtccc | agcacctggg | 11400 |
| caagccccct | gaggtaaagc | gccccagggt | ctccaggcca | accctaattg | ccagaccctg | 11460 |
| ggaccccgac | ctgggggtcca | ggccctaate | cctaggcccc | tgggaaaact | ctgtatacag | 11520 |
| tatgcctacc | gcagcccacc | tccctcacia | acctgtgtcc | ccccaaacca | tctcactctg | 11580 |
| gggcccgtgc | cgacctgtct | ccctgaacac | cacaatacat | ccccaccat | gtacggaggc | 11640 |
| cagctccatg | ccagcgcctc | tccagggggc | aggcccatcc | ctccaccccc | acctgaagg | 11700 |
| ttctccgaga | tcagcccagt | cccaaggcag | ggtagaggagc | ccccgggggt | actgtggctc | 11760 |
| tcaccccaat | ccacccctgt | ccagcaggtc | agagccaccg | tgggggtccc | gtgttcggct | 11820 |
| cacctgcctc | cctgcctccc | ctgcaggtga | caaaccgata | cctgtcccag | ctgaaggatg | 11880 |

0950083 091201

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-------|
| cccacaggtc | ccatcccttc | atcaaggagt | accaggccaa | ggtgagtggg | ggggatggcc | 11940 |
| tgtccccgag | aaccaggcca | gggggcgct | ggagctcagc | ctgggctcac | atgcgccctc | 12000 |
| tctctctccc | tccacctgtc | tccccacacc | ctgccccccac | cctgtgttgc | catgtgtctt | 12060 |
| gctaaaggag | aacgactttg | acaggctggg | gctacagtac | gctcccagcg | cctgaggctg | 12120 |
| gcccagagct | gtcaggacca | tgaagccagg | acagaggcca | ggagccagcc | ctgcagccct | 12180 |
| ccccacccgg | catccacctg | catccctctt | gggggcagga | gcccaccccc | agcaccacca | 12240 |
| tctgttaata | aatatctcaa | ctccagggtg | ttccacctga | | | 12280 |

<210> 12261
<211> 181
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12261 | | | | | | |
| aattagccgg | gcgtgggtggc | aggcgctgt | agtcccagct | acttgggagg | ctgaggcagg | 60 |
| agaatggcgt | gaaccaggga | ggcggagctt | gcagtgagct | gagatcgcg | cactgcactc | 120 |
| cagcctgggc | gacagggcaa | gactccgtct | caaaaaaaaa | aaaaaaaaa | aaaaaattgt | 180 |
| g | | | | | | 181 |

<210> 12262
<211> 295
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12262 | | | | | | |
| ggccgggtgc | agtggctcac | acctgtaatc | ccagcacttt | gggaggctga | ggtgggcaga | 60 |
| gcacgaggtc | aggagatcga | gaccatcctg | gctaacacgg | tgaaacccca | tctctactaa | 120 |
| aaatacaaaa | aattagccag | gcgtgggtggc | gggtgcctgt | agtcccagct | actcgggagg | 180 |
| ctgaggccag | agaatggcgt | gaacccggga | ggcggagctt | ccagtgagcc | gagatcatgc | 240 |
| cactgcactc | cagcctgggc | aacagagcga | gactccgtct | caaaaaacaa | aacaa | 295 |

<210> 12263
<211> 319
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 12263 | | | | | | |
| tttggccggg | cgcggtggct | cacgcctgta | atcccagcac | tttgggaggc | agaggcgggc | 60 |
| ggatcatgag | gtcaggagat | cgagaccatc | ctggctaaca | cagtgaacc | ccgcctctac | 120 |
| taaaaataca | aaaaattagc | cgggcgtggg | ggcgggcgcc | tgtagtccca | gctactcggg | 180 |
| aggctgaggc | gggagaatgg | cgtgaacccg | ggaggcggag | cttgcaagtga | gccgagatcg | 240 |
| cgccactgca | ctccagcctg | ggcgacagag | cgagactccg | tctcaaaaaa | aaaaaagaaa | 300 |
| aaaaaaaaaa | agagcaca | | | | | 319 |

<210> 12264
<211> 316
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|-------------|-------------|-----|
| <400> 12264 | | | | | | |
| gaattcttgg | ccgggcacgg | tggctcacgc | ctgtaatccc | agcactttgg | gaggccgagg | 60 |
| cgggcggatc | acgaggtcag | gagatcgaga | ccatcctggc | taacacgggtg | aaaccccgctc | 120 |
| tctactaaaa | atacaaaaaa | ttagccgggc | gtggtagcgg | gcgcctgtag | tcccagctac | 180 |
| tcgggagggt | gaggcaggag | aatggcgtga | acctggcagg | cggagcttgc | agtgagccga | 240 |
| gatcgcgcca | ctgcactcca | gcctgggtga | cagagcgaga | ctccgtctca | aaaaaaaaaa | 300 |
| aaaaaaaaaa | gaattc | | | | | 316 |

<210> 12265
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 12265
 cacttttggga ggcccaggcg ggcggatccc gaggtcagga gatccagacc atcctggcta 60
 acacggtgaa accccgtctc tactaaaaat accaaaaatt agcccggcgt ggtagcgggc 120
 gcctgtagtc ccagctactc gggagggtga ggcaggagaa tggcgtgaac ccgggaggcg 180
 gagcttgacg tgagccgaga tcgcgccact gcactccagc ctgggcgaca gagcgagact 240
 ccgtctcaaa aaaaaaaaaa aaagaaaaga aaaaaaaaaa aaaaga 286

<210> 12266
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 12266
 cggtggctca cgcttgaat cccagcactt tgggaggccg aggcgggagg atcacgaggt 60
 caggagatcg agaccatccc ggctaaaatg gtgaaacccc gtctctacta aaaatacaaa 120
 aaattagccg ggcgtagtgg cgggcgcctg tgggtcccagc tacttgggaa gctgaggcag 180
 gagaatggcg tgaacccggg aggcggagct tgcagtgagc cgagatcccc ccactgcact 240
 ccagcctggg cgacagagcg agactccgtc tcaaaaaaaaa aaaaaaaaaa aaacttgaga 300

<210> 12267
 <211> 316
 <212> DNA
 <213> Homo sapiens

<400> 12267
 aatttggttca attcggccgg gcgcggtggc tcacgcctgt aatcccagca ctttgggagg 60
 ccgaggcggg cggatcacga ggtcaggaga tcgagaccat cccgggctaaa acggtgaaac 120
 cccgtctcta ctaaaaatac aaaaaattag ccgggcgtag tggcggggcg ctgtagtccc 180
 agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcaagt 240
 agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa 300
 aaaaaaaaaa aatttg 316

<210> 12268
 <211> 283
 <212> DNA
 <213> Homo sapiens

<400> 12268
 cgcttgaat cccagcactt tggaaggccg aggcggccgg atcacgaggt caggagatca 60
 agaccatcct ggctaacacg gtgaaacccc gtctctacta aaaatacaaa aaattagcca 120
 ggcgtgggtg cgggggcctg tagtcccagc tactcgggag actgaggcag gagaatggcg 180
 tgaacccggg aggtggagcc tgcagtgagc cgagatcgcg ccactgcact ccagcctggg 240
 cgacagagcc agactccatc tcaaaaaaaaa aaaaaaaaaa aaa 283

<210> 12269
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 12269
 tcgggcgctt gtagtcccag ctacttggga ggctgaggca ggagaatggc gtgaacccgg 60

gaggcggagc ttgcagtgag ccgagatccc gccactgcac tccagcctgg gcgacagagc 120
gagactccgt ctcacaaaat aaaaaaaaaa taaaataaaa taaaataaaa 170

<210> 12270
<211> 109
<212> DNA
<213> Homo sapiens

<400> 12270
ggcgtgaacc caggaggcgg agcttgcaat gagatgagat cgcgccactg cactccagcc 60
tgggcgacag agcaagactc catctcaaaa aaaaaaaaaa aaaaaggac 109

<210> 12271
<211> 300
<212> DNA
<213> Homo sapiens

<400> 12271
agcgcggttg ctcacgcttg taatcccagc actttgggag gccaggcgg gaggatcatg 60
aggtcaggag atccggacca tcctggctaa catggtgaaa cccgtctct actaaaaata 120
caaaaaaatt agccaggcgt ggtggctggc gcctgtagtc ccagctactc gggaggctga 180
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgca tgcgccactc 240
gcactccagc ctgggcgaca gagcaagact ccgtctcaaa aaaaaaaaaa aagtgcacac 300

<210> 12272
<211> 184
<212> DNA
<213> Homo sapiens

<400> 12272
cgtgggtggcg ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg 60
aacctgggag gcggagcttg cagtgcgcgc agatcgcgcc actgcactcc agcctgggag 120
acagagcgag agtccgtctc aaaaaaaaaa aaaaaaaga aaagaaaaaa gaacaaacaa 180
cagc 184

<210> 12273
<211> 147
<212> DNA
<213> Homo sapiens

<400> 12273
ggtcccagct actcgggagg cttaggcagg agaatggcgt gaaccagga ggtggagctt 60
gcagtgcgc gagatcgcgc cactgcactc cagcctgggc gacagagcga gactccatct 120
caaaaaaaaaa aaaaaaaaaa aattgtg 147

<210> 12274
<211> 169
<212> DNA
<213> Homo sapiens

<400> 12274
aaaattagcc aggcgtgatg gtgggtgcct gtagtcccag ctacttggga ggctgaggca 60
ggagaatggc gtgaaccagc gaggtggagc ttgcagtgc ctgagatcgc gccactgcac 120
tccagcctgg gcgacagagt gagactccat ctcaaaaaaa aaaaaaaga 169

<210> 12275
<211> 131
<212> DNA
<213> Homo sapiens

<400> 12275
ggaggctgag gcaggagaat ggcgtgaacc caggaggcgg agcttgagc gagctgagat 60
tgcgccactg cactccagcc tgggcaacag agcgagactc cgtctgaaaa aaaaaaaaaac 120
aaaaactggg g 131

<210> 12276
<211> 227
<212> DNA
<213> Homo sapiens

<400> 12276
taagaccatc ctggctaaca cgggtgaaacc ccgtctctac taaaaatata aaaattagcc 60
aggcgtgggtg gcgggcgcct gtagtcccag ctacttgagg ggctgaggca ggagaatggc 120
atgaacccgg gaggtggagc ttgcagtgag ctgagatcgc gccactgcac tccagcctgg 180
gcaacagagc gagactctgt ctcaaaaaaa aaaaaaaaaa tcaagta 227

<210> 12277
<211> 235
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (230)
<223> n equals a,t,g, or c

<400> 12277
agatggagcc catcctggct aacacggtga aaccccgctt ttactaaaaa tacaaaaaat 60
tagccgggcg tgggtggcgga cgcctgtagt cccagctact cgggaggctg aggcaggaga 120
atggcgtgaa cccgggaggc ggagcttgca gtgagccgag atcgcgccac tgcactccag 180
cctgggcgac agagcgagac tccgtctcaa aaaaaaaaaa aaaaaaaan aataa 235

<210> 12278
<211> 187
<212> DNA
<213> Homo sapiens

<400> 12278
cccatctcta ctaaaaatac aaaaaattag ccaggcgtgg tggcgggccc ctgtagtccc 60
agctacttgg gaggtgagg caggagaatg gtgtgaaccc gggaggcgga gcttgagtg 120
agccgagatc gcgccactgc gctccagcct gggcgacaga gcgaaactcc gtctaaaaaa 180
aaaaaaa 187

<210> 12279
<211> 143
<212> DNA
<213> Homo sapiens

<400> 12279
gtagtcccag ctactgggga ggctgaggca ggagaatggc gtgaacctgg gaggcggagc 60
ttgcagtgag ccgagatcgc gccactgcac tccagcctgg gcgacagagc gagactccgt 120
ctcaaaaaaa aaaaaaagaa atg 143

<210> 12280
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 12280
 gccgggctg gtagcgggct cctgtagtcc cagctactcg ggaggctgag gcaggagaat 60
 ggcgtagacc cgggaggcgg agcttgtagt gagccgagat ctgcccactg cactccagcc 120
 tgggcgacag agcgagactc cgtctcaaaa aaaaaaaaaa aaaaagactg 170

<210> 12281
 <211> 184
 <212> DNA
 <213> Homo sapiens

<400> 12281
 aaatacaaaa aattagccag gcgtggtggc ggggtgcctgt agtcccagct actcgggagg 60
 ctgaggcagg agaattggcat gaacctggga ggcggagctt gcagttagct gagatcgtgc 120
 cactgcactc cagcctgggc aacagagcaa gacccctgtc caaaaaaaaa aaaaaaaaaa 180
 ggaa 184

<210> 12282
 <211> 125
 <212> DNA
 <213> Homo sapiens

<400> 12282
 ctgaggcagg agaattggcgt gaacccggga ggcggagctt gcagttagcc gagatggcgc 60
 cactgcagtc cagcctgggc gatagagcga gactctgtct caaaaaaaaa aaaaaaaaaa 120
 aaatt 125

<210> 12283
 <211> 196
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (106)
 <223> n equals a,t,g, or c

<400> 12283
 tctactaaaa atacaaaaaa ttagccgggc gtagtgggcg gcgcctgtag tcccagctac 60
 ttgggaggct gaggcaggag aatggcgtga acccgggagg cggacntgca gtgagccgag 120
 atcccgccac tgcactccag cctgggagac agagcgagac tccgtctcaa aaaaaaaaaa 180
 aaaaaaaaaa gaaata 196

<210> 12284
 <211> 183
 <212> DNA
 <213> Homo sapiens

<400> 12284
 aatacaaaaa attagccggg tgtggtggcg ggcgcctgta gtcccagcta ctggggaggc 60
 tgaggcagga gaatggcgtg aaccgggag gtggagcttg cagttagctg agatcgtgcc 120

actgcactcc agcctgggcg acagagcgag actccgtctc aaaaaaaccc cacaacaac 180
aaa 183

<210> 12285
<211> 175
<212> DNA
<213> Homo sapiens

<400> 12285
cgggcgtagt ggcgggccc ttagtccca gctacttggg aggctgaggc aggagaatgg 60
cgtgaaccgc ggaggcggag cttgcagtga gccgagattg cgccactgca ctccagcctg 120
ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa atcac 175

<210> 12286
<211> 196
<212> DNA
<213> Homo sapiens

<400> 12286
tctactgaaa atacagaaaa attagccggg cgtggtagcg ggcgcctgta gtcccagcta 60
ctcgggaggc tgaggcagga gaatggcgtg aaccggggag gcggagcttg cagtgaagccg 120
agatcgcgcc actgcactcc agactgggcg acagagcgag actccgtctc aaaaaaaaaa 180
aaaaaaaaaa aatgac 196

<210> 12287
<211> 159
<212> DNA
<213> Homo sapiens

<400> 12287
ctgtggtccc agctactcgg gaggtgagg gaggagaatg gcgtgaaccg aggaggcaga 60
gcttgcaagt agccgagatc gcgccactgc actccagcct gggtagacaga gcgagactcc 120
gtctcaaaaa aaaaaaaaaa gaaaagaaaa agaaaaata 159

<210> 12288
<211> 190
<212> DNA
<213> Homo sapiens

<400> 12288
ccgtctctac taaaaatagc aaaaattagc caggcgtggt ggcaggtgcc tgtgggtccca 60
gctactcggg aggctgaggc aggagaatgg catgaaccga ggaggcggag cttgcagtga 120
gccgagatca tgccactgca ctccagcctg ggtgacagag tgagaccatc tcacaaaaaa 180
aaaaaaaaaa 190

<210> 12289
<211> 219
<212> DNA
<213> Homo sapiens

<400> 12289
catcctggct aacacagtga aaccccgctc ctactaaaaa tacaaaaaat tagctgggcg 60
tgctgggtggg tgccctgtagt cccagctact cgggaggctg aggaggaga atggcgtaga 120
cccaggaggc ggagcttgca gagagccgag atctcgccac tgcaactccag cctgggcgac 180
agagcgagac tccgtctcaa aaaaaaaga aaaaagaaa 219

[illegible]

```
<210> 12291
<211> 169
<212> DNA
<213> Homo sapiens
```

```
<210> 12292
<211> 207
<212> DNA
<213> Homo sapiens
```

```
<210> 12293
<211> 230
<212> DNA
<213> Homo sapiens
```

```
<210> 12294
<211> 189
<212> DNA
<213> Homo sapiens
```

| | |
|-------|-------|
| <210> | 12295 |
| <211> | 207 |

<212> DNA
<213> Homo sapiens

<400> 12295
aaccatct ctattaaaat acaaaaatta gccgggctg gtggcgggcg cctgtagtcc 60
cagctacttg ggaggctgag gcaggagaat ggcgtgaacc cgggaggcg agcttgagct 120
gagccgagat cccgccactg cactccagcc tgggcgacag agcgagactc cgtctcaaaa 180
aaaaaaaaa aaaaaaaaaa aaaaaga 207

<210> 12296
<211> 150
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (21)
<223> n equals a,t,g, or c

<400> 12296
ctgtagtccc agctattcgg naggtctgggg caggagaatg gcgtgaaccc gggaggcgga 60
gcttgagctg agccgagatc gcgccactgc actctagcct gggcgacaga gcgagactcc 120
gtctcaaaaa aaaaaaaaaa aaaacaactt 150

<210> 12297
<211> 162
<212> DNA
<213> Homo sapiens

<400> 12297
agctacttgg gaggtctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgagctg 60
agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa 120
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagaaca aa 162

<210> 12298
<211> 301
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (98)
<223> n equals a,t,g, or c

<400> 12298
cgggtggctca cgctgtaat cccagcactt ggggaggccg aggcgggagg atcacgaggt 60
caggagatcg agaccatcct ggctaacacg gtgaaacncc gtctctacta aaaatataaa 120
aaattagcca ggcgtggttg tgggcgcctg tagtcccagc tactcaggag gctgaggcag 180
gagaatggcg tgaaccggg aggcggagct tgcagtgagc cgagatcgtg cactgcact 240
ccagcctggg cgacagagtg agactccgtc tcaaaaaaaaa aaaaaaaaaa gttattcttc 300
g 301

<210> 12299
<211> 1092
<212> DNA
<213> Homo sapiens

<400> 12299

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|------|
| cacaactctg | ggaggaagag | tatcccaacc | tttgggtgaa | caaactgaat | ctcaaatatt | 60 |
| ttataattta | tccaagctgg | taagtggcag | agctgggatt | tgaaccagg | tctgtcttgt | 120 |
| tctaaatgcc | ctgctttttt | tcactgcac | ttcctcttgt | gccatgtggg | taaagatagg | 180 |
| cttcctttca | atattcagtt | tagttctatt | ttacaaaact | tcactaagca | cctaccatgt | 240 |
| gccatactct | ctgggtgggc | cagaggacaa | agagatgtat | tagacctgac | ccctgacttg | 300 |
| aggaactcca | tgttttaatg | aaaagtagat | gactgaccac | taagatccag | gatttagggt | 360 |
| tctttcttgc | tacccataga | aatagcaata | ttgccttgtg | gatccctgga | ccattttcct | 420 |
| catgggaagg | atatcttttg | cttggattaa | aactgcaaag | cataggataa | gaagtcagtt | 480 |
| ctcagggtcac | tggttcactt | agcttttttg | tggctagaat | tacagccaag | accagggtcca | 540 |
| gccagggtcg | gcacagggtg | aggggatgtc | aagctgtggc | accttagtga | cagcaggaag | 600 |
| catggggcct | tcagtgcctg | gggtgaagtg | aggggtggtc | tagggccatc | actagctcac | 660 |
| atggtataat | gagaataaat | tagcagattt | gagttcattc | tctggctttg | ccacttactt | 720 |
| gtgtgtgact | ttgggcaagt | tactcaactc | taagtctcca | ttttcttatt | tagaaagtcg | 780 |
| cactaggccg | ggtgcagtg | ctcacacctg | taatcccagc | actttgggag | gccaagggtg | 840 |
| gtggatcacg | aggtcaggtg | atcgagacta | tcctggctaa | catggtgaaa | ccccgtctct | 900 |
| actaaaaata | caaaaaatta | gccaggcggtg | gtggcaggtg | cctgtagtcc | cagctactcg | 960 |
| ggaggctgag | gcaggagaat | ggcgtgaacc | cgggaggtgg | agcttgagct | gagctgagat | 1020 |
| cgcgccactg | cactccagcc | taagcgacag | agcgagactc | cgtctcaaaa | aaaaaaaaaa | 1080 |
| aaagaaagtg | ac | | | | | 1092 |

<210> 12300

<211> 267

<212> DNA

<213> Homo sapiens

<400> 12300

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| agatcacgag | tcaggagatt | gagaccatcc | tggctaacac | agtgaaccc | cgtctctact | 60 |
| aaaaatacaa | aaaatcagcc | gggcgtgggtg | gcgggcgcct | gtagtcccag | ctactcagga | 120 |
| ggctgaggca | ggagaatggc | gtgaaccccg | taggcggagc | ttgcagttag | ccgagattgc | 180 |
| gccactgcac | tccagcctgg | gcgacagagc | gagactccgt | ctcaaaaaaa | aaaaaaaaaa | 240 |
| aaaaagaaaa | gaaaagaaaa | gaaaaaac | | | | 267 |

<210> 12301

<211> 246

<212> DNA

<213> Homo sapiens

<400> 12301

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| gatcacgagg | tcaggagatc | gagaccatcc | tggctaacac | ggtgaaaccc | catctctact | 60 |
| aaaaatacaa | aaaattagct | gggcgtgggtg | gcaggcgcct | gtagtcccag | ctactcagga | 120 |
| ggctgaggca | ggagaatggc | gtgaacctgg | gaggtggagc | ttgcagttag | ccgagattgc | 180 |
| gccactgcac | tccagcctgg | gcgacagagt | gagactccgt | ctcaaaaaaa | aaaaacaaaa | 240 |
| aaacaa | | | | | | 246 |

<210> 12302

<211> 193

<212> DNA

<213> Homo sapiens

<400> 12302

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| aaaaattagc | cgggcgtggg | ggcgggcgcc | tgtagtccca | gctactcgag | aggctgaggc | 60 |
| aggagaatgg | cgtgaacccg | ggaggcggag | cttgacagtga | gccgagatcg | cgccactgca | 120 |
| ctccagcctg | ggcgacagag | cgagactccg | tctcaaaaaa | aaaaaaaaaa | aaaaaaaaaga | 180 |
| tcagaaaaaa | ata | | | | | 193 |

<210> 12303

<211> 3991
<212> DNA
<213> Homo sapiens

<400> 12303

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| ccccgtctct | actaaaatac | aaaaaattag | ccgggcgtag | tggcaggcgc | ctgtagtccc | 60 |
| agctacttgg | gaggctgagg | caggagaatg | gcgtgaaccc | gggaggcgga | gcttgacagt | 120 |
| agccgagatc | ccgccactgc | actccagcct | gggcgacaga | gcgagactcc | gtctcaaaaa | 180 |
| aaaaaaaaaa | aaaaaaaaaa | aaggcgtcag | cttttttatcg | cacaaaattg | cagatcaaaa | 240 |
| gtctgaaatc | aaggggttca | cagaaccaca | ctcctccaaa | tcctgtaaaa | aaaattccgt | 300 |
| ttcttgccct | ttccggctcc | tgatagtggg | gggttttccct | tacctgaggg | gggcatcact | 360 |
| ccaccctttt | tttttgcctt | caccgggcct | cctctctggg | tctgggtctt | ctgccactgg | 420 |
| atttagggcc | cactttggta | atccaggagg | acctcaagat | tcttcattat | acctgcaaag | 480 |
| accatttttg | caaatgaaat | catattgcac | gagttctggg | aatttatacc | tggacatatc | 540 |
| ttttaggggg | cactattcaa | tatactgcat | gtagcaagag | aatactagcg | catgtatcat | 600 |
| ctcatccaag | tcttcaagag | ccttgacagt | tactgttatt | tctcacataa | gaaaaccgta | 660 |
| gtgataaaa | tgaaaagcta | acatttaaaa | ctcgatctgt | cagccagggt | cagtggctca | 720 |
| cgcctgtaat | cccagcactt | tgggaggcca | agacaggcag | atcacgaggt | caggatatcg | 780 |
| agaacatcct | ggctaacaca | gtgaaacccc | gtctctacta | aaaatacaaa | aaattacctg | 840 |
| ggcgtgggtg | tgggcgcctg | tagtcccata | tactcgggag | gctgaggcag | gagaatggca | 900 |
| tgaaatgggg | aggcagagct | ttcagtgagc | caagattgcg | ccactgcact | ccagcctggg | 960 |
| cgacagagcg | agactccgtc | tcaaaaaaaa | aacaaaaaaa | aacaaaaaaa | aaacctcgat | 1020 |
| ctgtcaggat | ttaagtctat | tccttttagcc | gctatggcat | tttactacct | acaaagcaga | 1080 |
| cagggccact | ttctaaattg | cccagcctac | aggctgaatg | taccagagtc | ctaagccacc | 1140 |
| acaaggtccc | tctgtgcacc | ctccttcacc | tatttgtata | gccatatggc | ccaccaggag | 1200 |
| tgcagaaata | caggctatct | cacaggtcag | caggaaattc | ccaattgccc | tcagggctaa | 1260 |
| tcagacactc | tcagccaact | tcttttaaaat | taagttccca | tttctcttag | taagttctgc | 1320 |
| ttgatgcttc | ataaggttca | tggcaagtta | aatgcattgc | atattcacca | ctggtaagca | 1380 |
| atgtagataa | gaaattctaa | agagaatatt | tcactctcat | ttcaatctag | caaacttata | 1440 |
| aaagtattga | tttttaaacg | ggatgcaaat | gacactagag | cataactcat | agtgacaagg | 1500 |
| agaaaggact | aataaaggag | tttttatgtg | gtcactttga | attagacctg | tcagtgcac | 1560 |
| tctagtgaat | attaactgtg | tgcatttttc | catccccctt | caaactgctt | ggcttaaaat | 1620 |
| tcaaataaag | ttggttccct | gtgaaaaccc | ccctcctggg | ggcatgagag | aattaatgta | 1680 |
| ctttcaaaag | taaacaattt | gctcctttct | gcagttggag | cagagctgtt | atagatcatg | 1740 |
| ccaactcaaa | gggaaaatag | agtcaaggaa | actgaagagt | caaaagccaa | ccacctggaa | 1800 |
| atttatgtca | gttttttatgc | ttaagatcct | tcactgcaaa | caaatatcac | actttaatgc | 1860 |
| cacagcacia | taaagaaaaa | cctttgactt | gtgggcttgt | ggaaaaagaa | aatgaaaaaa | 1920 |
| gcagcattca | tgtgggagtc | aaaaccttat | ctgcacctta | gggaggaata | aaaaagcccg | 1980 |
| tatgtttatc | cttttatctc | tgttggagcc | aaggcgcaga | ttgactcaat | ggacaggaag | 2040 |
| ctgacagtga | tggagcaact | gctgcttacc | tgattgtttc | atcatgctta | tatcattcaa | 2100 |
| ctctcatgcc | cacccttgaa | agtaggcaaa | atgccctcat | tttagaattg | acaaaaaaat | 2160 |
| tcaagcttag | aaacctaaat | gattaatcaa | aggctactct | gttaattttg | agtgatacag | 2220 |
| agcaagccaa | agacattctc | agacaccaag | cttacctaaa | ccaacttctt | tttctgtctc | 2280 |
| ctgccagcat | atataaacac | atgcttttaa | aataatgaca | ggctaaatct | agcaatcaag | 2340 |
| tcattatagc | attccagtaa | gtctgcaagt | gacatgttgt | tttcacccaa | gatggaccag | 2400 |
| gatatgacat | tgtctccttc | tattatgccc | agccagcaga | ctgactgtca | gatgccact | 2460 |
| gcggtgatct | gttttagcaag | gtcagctgct | tgattgctat | gaataattgg | atgccattaa | 2520 |
| taatggtcag | ctccaggata | taggaaagtg | gtcaagcgtg | gtaattgtat | tttgaattcc | 2580 |
| agcagattat | ttcctgggaa | gcaggaagac | aaccactata | taggatacag | tttttctaag | 2640 |
| tagaatagaa | ataattgctt | ccctagaggt | gaaggggaga | agccaagggc | tcccgtataa | 2700 |
| acatgtgtga | ccatatctag | taagaaacat | ggaggtcaag | gttttgcaag | tgatggctaa | 2760 |
| tgctatgaag | cctggccatt | accatcacta | aaagccttta | caagttcaca | ttcttggtat | 2820 |
| tctcttattg | agaataaac | tagagcttta | catgttgagg | ggccaccacc | taaattttga | 2880 |
| agcaccagtg | agggttagacc | aatggctaat | taggaaatct | aatacaattg | atatccatct | 2940 |
| gaaaagggtca | agcataaatc | ttttgctgtt | aaatgtgtat | taaatttctca | ccacatatta | 3000 |
| agggtctgtg | atactgcaag | ataattagtc | aaaacattat | tatcttaaaa | aaaaagccct | 3060 |
| gtcaaaaaat | gaagggtttt | taaaaaatctc | ccaggacata | ataataaaag | tgagaaatta | 3120 |
| aaaagagatt | gaaaaaaaaa | gcacgtgaaa | aggaaaaact | aaaagtgatt | ttagaggata | 3180 |
| gactgcagta | taggcaaac | ataaagagca | aaacatttca | tagaaaaata | taatagctat | 3240 |
| cagtttcaga | ctttactaaa | gaaactatct | cttaaatgtg | caagcaatgt | gggcagaaca | 3300 |
| aattaaagtt | aaaacttatt | atagcaaagg | aaatatggat | gggagcatgg | aatcatgata | 3360 |

| | | | | | | |
|------------|------------|-------------|------------|------------|-------------|------|
| caactgcctg | aaatgaaata | ttcaacacaa | gcctcaattc | ttgccagctt | ttccattatt | 3420 |
| tgaagctacc | aggagttgga | tcatttttgac | catttttttt | ttaagtattc | agtgtttgga | 3480 |
| tgaactctac | agtgaaaaga | gataaacaat | catagagcta | aaattataaa | actctcataa | 3540 |
| gaaaacataa | ggaataagtc | tttgtaacct | tgggttacac | aatggtttcc | tggatctggc | 3600 |
| accgaaagat | aggtgacaaa | agaaaacact | taggctgggc | gtggtggctc | atgcttataa | 3660 |
| tcccagcact | ttgggaggcc | gagctgggcg | gatcatgagg | tcaggagacc | atcctcgcca | 3720 |
| acatggtgaa | accccgtctc | tactaaaaat | ccaaaaaatt | ggccaggcgt | ggtggcttac | 3780 |
| acctgtaate | ccagcacttt | gggaggccga | ggtgggcgga | tcaagaggtc | aggagatcaa | 3840 |
| gaccatcctg | gctacggtga | atccccgtct | ctactaaaca | tacaaaaaat | tagcggggcc | 3900 |
| tggtggcggg | cgctgtagtc | cccagctact | cgggaggctg | aggcaggaga | atggcggtgaa | 3960 |
| cccgggaggc | ggagcttgca | gtgagctgag | a | | | 3991 |

<210> 12304
 <211> 177
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12304 | | | | | | |
| cataaattag | ccgggcgtag | tggcggggcg | ctgtagtccc | agctacttgg | gaggctgagg | 60 |
| caggagaatg | gcgtgaaccc | gggaggccga | gcttgagctg | agccgagatc | ccgccactgc | 120 |
| actccagcct | gggcgacaga | gcgagactcc | gtctcaaaaa | aaaaaaaaaa | atgagtc | 177 |

<210> 12305
 <211> 140
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12305 | | | | | | |
| ggctgaggca | ggagaatggc | gtgaaccccg | gaggcggagc | ttgcagttag | tcgagatcgc | 60 |
| gccactgcac | tccagcctgg | gcgacagagc | gaaactccgt | ctcaaaaaaa | aaaaaaaaaa | 120 |
| aaaaaaaaaa | gaggggaaaa | | | | | 140 |

<210> 12306
 <211> 187
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12306 | | | | | | |
| aaaaatacaa | aaaattagcc | gggcgtcgtg | gcggggcgct | gtggtcccag | ctactcggga | 60 |
| ggctgaggca | ggagaatggc | gtgaaccccg | gaggcggagc | ttgcagttag | ccgagatcgc | 120 |
| gccactgcac | tccagcctgg | gcgacagagc | gagactccgt | ctcaaaaaaa | aaaaaaaaaa | 180 |
| aaagggg | | | | | | 187 |

<210> 12307
 <211> 246
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12307 | | | | | | |
| atcacgaggt | caggagatcg | agaccatccc | ggctaaaacg | gtgaaacccc | gtctctacta | 60 |
| aaaatacaaa | aaattagccg | ggcgtagtgg | cgggcgcctg | tagtcccagc | tactcaggag | 120 |
| gctgaggcag | gagaatggcg | tgaacccggg | aggcggagct | tgcagttagc | cgagatcccc | 180 |
| ccactgcact | ccagcctggg | cgacagagcg | agactccgtc | tcaaaaaaaa | aaaaaaaaaa | 240 |
| aatgga | | | | | | 246 |

<210> 12308

<211> 153
<212> DNA
<213> Homo sapiens

<400> 12308
cccagctact cgggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca 60
gtgagccgag atcgcgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa 120
aaaaaaaaaa aaaaaaaga aagcagtggg gcc 153

<210> 12309
<211> 211
<212> DNA
<213> Homo sapiens

<400> 12309
ctgggctaaca cagtgaacc ccgtctctac taaaaatata aaaaaattag ccaggcgtgg 60
tggcggggcg ctgtagtccc agctactcgg gaggctgagg caggagaatg gcatgaactc 120
aggaggtgga gcttgacagt agccaagatc gcgccactgc actccagcct gggcgacaga 180
gtgagactct gtctcaaaaa aaaaaaaga a 211

<210> 12310
<211> 202
<212> DNA
<213> Homo sapiens

<400> 12310
tactaaaaat acaaaaaatt agccggggcgt agtggcgggc gcctgtagtc ccagctactc 60
gggaggctta ggcaggagaa tggcgtgaac ccgggaggcg gagcttgacag tgagccgaga 120
tcccgcact gcaactccagc ctgggcgaca gagcgagact ccatctcaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaga aa 202

<210> 12311
<211> 203
<212> DNA
<213> Homo sapiens

<400> 12311
ccatctctac taaaaatata aaaaattagc cgggcatggt ggcgggcgcc tgtagtccca 60
gctactcggg aggctgaggc aggagaatgg cgtgaacccg ggaggcggag cttgcagtga 120
gccgagatct cgccactgca ctccagcctg ggcgacagag cgagactccg tctcaaaaaa 180
aaaaaaaaag aaagacatgt aaa 203

<210> 12312
<211> 166
<212> DNA
<213> Homo sapiens

<400> 12312
ctgggcgtgg tggcgggtgc ctgtagtccc agctacttgg gaggctgagg caggagaatg 60
gcgtgaaccc gggaggcgga gcttgacagt agccgagatc aggccactgc actccagcct 120
gggcaacaga gtgagactcc gtctcaaaaa aaaaaaaaaa aagata 166

<210> 12313
<211> 280
<212> DNA
<213> Homo sapiens

<400> 12313

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|-----|
| cggatcacga | gggtcaggaga | tcgagaccat | cctgggctaaa | acgggtgaaac | cccgtctctta | 60 |
| ctaaaaatac | aaaaaattag | ccgggcgtag | tggcgggagc | ctgtagtccc | agctacttgg | 120 |
| gaggctgagg | caggagaatg | gcgtgaaccc | gggaggcgga | gcttgagtg | agccgagatc | 180 |
| ccgccactgc | actccagctt | gggcgacaga | gcgagactcc | gtctcaaaaa | aaaaaaaaata | 240 |
| aataaaaaaa | aaaaaaaaaa | aaaaaaaaag | aaaagaaaaa | | | 280 |

<210> 12314

<211> 190

<212> DNA

<213> Homo sapiens

<400> 12314

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| atcactgggc | gtagtggcgg | gcgcctgtag | tcccagctac | ttgggaggct | gaggcaggag | 60 |
| aatggcgtga | acccgggagg | cggagcttgc | agtgcgcca | gatcccgcca | ctgcactcca | 120 |
| gcctgggcga | cagagcgaga | ctccgtctca | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 180 |
| aaaaaagaaa | | | | | | 190 |

<210> 12315

<211> 2364

<212> DNA

<213> Homo sapiens

<400> 12315

| | | | | | | |
|------------|------------|-------------|------------|------------|-------------|------|
| ctcactcctg | taatcccagc | actttgggag | gccgaggcgg | gcggatcacg | agggtcaggag | 60 |
| atcgagacca | tcttggttaa | cacgggtgaaa | ccccgtctct | actaaaaata | caaaaaaaaaa | 120 |
| attagccggg | cgtggtagcg | ggcgccgtgt | gtcccagcta | ctcgggaggc | tgaggcgagga | 180 |
| gaatggcgtg | aacctgggag | gcggagcttg | cagtgcgccc | agatcgcgcc | actgcactcc | 240 |
| agcctgggag | acagagcgag | actccgtctc | aaaaaaaaaa | aaaaaaaaaa | aaaagaataa | 300 |
| agtataagag | aacatgagtg | aatgcctgtc | atcttttttt | ttttttcttc | aaaaacaggg | 360 |
| tctcactttg | tcacccaggc | tgcagtgcag | tggcgcaatc | atggctcact | gcaacctcta | 420 |
| gcacctgggc | tcaagagctc | aagagggtcct | accaactcag | cctcccaagg | agctgggact | 480 |
| acagggtgat | gccaccacac | cctaaggtaa | atctttgtgt | ttttatagag | acagggttta | 540 |
| ccatgttgcc | caggctgttc | tgaaactcct | gggcttaagg | gatcgaccca | cctccatctc | 600 |
| ccaaggcact | gggattatag | gcatgagcca | ccgcgcctgg | cctatcatca | tttattcatt | 660 |
| tattcatcta | tgcaaaaata | ttctttgagt | gcctaattgc | taagcaatgg | gacaagcact | 720 |
| ggcaagtcac | actggcaaaa | tatcatcccg | ccactcaagg | agcttatagg | tcagctgggg | 780 |
| agacaaagaa | gaacatgggc | ccttgtaagt | agctaagtat | ggtgctaggg | gaaatatcca | 840 |
| taagttatgg | gaaccagag | gaattcattc | atttattcgt | ttagtaaata | tttatgtgcc | 900 |
| aaactcttgg | gacccaatgg | tgacctaacg | agacaagaca | catccaccta | cagtgtttac | 960 |
| agagtagtgt | gggagacaga | cattaatgaa | atgctcttac | agacctatca | ttacctattg | 1020 |
| tcatatgagt | tatgaaagaa | aaataacagg | ccgggcatga | tggctcacgc | ctgtaatccc | 1080 |
| agcacttttg | gagaccaagg | cagggtggat | acttgaggtc | aggagttaa | gaccagcctg | 1140 |
| gccaacatga | tgaaacccca | tctctactaa | aaatacaaaa | aaaaaaaaat | tatctgggca | 1200 |
| tggtggcagg | cagctgtaat | cccagctact | cgggaggctg | aggcaggaaa | ctcgcttgaa | 1260 |
| cctgggaggc | agagggttga | ctgagctgag | attgcaccac | tgactccag | cctgggtgac | 1320 |
| agagcaagac | tctgtcaaaa | aaaaaaaaaa | aaaagaaagg | aaggaaagga | aggaaggaag | 1380 |
| gaaggaagga | aatagagtg | aagagggggg | cctagtgtag | tctaagatga | ctcaggagaa | 1440 |
| gctgtttgag | ctgatgcctg | aagacggggt | gcatgtaagt | agttgagtag | gtaaaagaga | 1500 |
| gggtgactat | catatcaggg | attcgggaga | aaaaaaaaaa | gagagagaga | ggggaagagt | 1560 |
| gctgtggacc | cattgagctc | cagcccagct | ccaactctgt | gggtcaggaa | agactttcca | 1620 |
| gcacttaagc | tgagtccaga | aggatgagta | ggagtgcgac | agctgaggag | gagctggggt | 1680 |
| ggaaggaaag | cattccagag | cagcagatga | cttgtgcaaa | ggcacacagg | cagctgggtg | 1740 |
| tggtggctca | cacctgtaat | cccagcactg | tgggaggcca | agatgggtgg | accgtttgag | 1800 |
| cccaggaatt | caagaccaac | ctggatgaca | tagtgaaacc | ctgtctctac | caaaaaaaaaa | 1860 |
| aaaaaaaaaa | ttgaaaaaaa | aaaagaagct | gggcatgggt | gcgtgcacct | gtgggtcccag | 1920 |
| ctaccagga | aactgaggtg | ggagggaagt | cgaggctgta | gtgaaccatg | gtggcaccat | 1980 |
| tgcattccag | cccggtgac | agagcaaggc | cctgtacaaa | aaaaaaaaaa | aaaaaagcat | 2040 |

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|------|
| ggaggcaaca | gaacatagtg | gattggaagg | aaaaacaagt | ggttcagacc | aggtgcagtg | 2100 |
| gctcatgcct | gtaatcccag | cactttggga | ggccgaggcg | ggcagatcac | gaggtcagga | 2160 |
| gatcaagacc | atcctcgcta | acacagtga | accccgctctc | tactaaaaat | acaaaaaaat | 2220 |
| tagccaggcg | tgggtggtcg | tgcctgtagt | cccagctact | caagaggctg | aggcaggaga | 2280 |
| atggcgtaga | cctgggaggc | agagcttgca | gtgagcggag | atcatgccac | tgcactccag | 2340 |
| cctgggcgac | agagcaagac | tcca | | | | 2364 |

<210> 12316
 <211> 1367
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|------------|------|
| <400> 12316 | | | | | | |
| atgaaacccg | gtctctacta | aaaatccaaa | aaattagccg | ggtgtggtgg | caggcgcttg | 60 |
| tagtcccagc | tactcgggag | gctgaggcag | tagaatggcg | tgaacccggg | aggcggagct | 120 |
| tgcagtgaag | ggagatcgcg | ccactgcact | ccagcctggg | cgacagagcg | agactccgtc | 180 |
| tcaaaaaaaaa | aaaaaaaaatc | tttattaaat | tgacaccccc | cttgaacacc | tgttattatg | 240 |
| aggtacgtag | gttctagacc | aaagctaata | gaacactgca | atggtgaaaa | tgttctacat | 300 |
| cttcagtata | gtatctaata | tgatagccac | tagccacatg | tggctattga | gcacttgaaa | 360 |
| tggaaattagt | gtgactgggg | aaccaaattc | ttaattatat | ttatttttca | ttaaactaac | 420 |
| tttaaatagc | ccactatggg | tagtggttat | cataatggac | agtgcagatc | tgtacaacaa | 480 |
| ggatgcaacg | cagcagggtg | ttagacacaa | acggccccctg | ccccctgggg | actttacatt | 540 |
| ttagtgtagg | aatcagcaa | gaaggaagaa | agtgattaga | taaggaaaat | aagagctctt | 600 |
| cagaaaataa | aatagagagt | tcctggagcg | tggaggggca | acttcagcaa | aggtcaggga | 660 |
| gggcactttt | tgaggaggag | acatttgggc | taagacctca | acagatgaag | cagctgggca | 720 |
| aagttttgag | ggaagggtct | cccagacaga | gggagcagca | ggtgcaaagg | tcccagagtg | 780 |
| gtggccgggt | gcggtggctc | acacctgtaa | tcccagcact | ttgggaggcc | gaggcaggag | 840 |
| gatcacgagg | tcaggaaatc | gagaccatcc | tggctaacac | gatgaaaccc | cgtctctact | 900 |
| aaaaatacaa | aaaaattagc | cgggcgtggt | ggcgggcacc | tgtagtcca | gctactcagg | 960 |
| aggctgaggc | aggagaatgg | cgtgaacccg | ggaggcagag | ttcgagtgga | gacgagatcg | 1020 |
| cgccactgca | ctccagcctg | gcgacagagc | aagattctgc | ctcaaaaaaa | aaaaaaaaaa | 1080 |
| aaaagggtctc | aagggtggga | ccagcctgat | gtgtttaaga | aaatgctgtg | gctgggccgg | 1140 |
| gcacggtggc | tcacgcctgt | aatcccagca | ctttgggagg | ctgaggcggg | tggatcacaa | 1200 |
| ggtcaggaaa | tcgagaccat | cctgggctaac | aagggtgaaac | cccgtctcta | ctaaaaatac | 1260 |
| aaaaattagc | cgggcgtgat | ggtgggcgcc | tgtaatccca | gctactcggg | aggctgaggc | 1320 |
| aagagaatgg | cgtgaacccg | ggaggcggag | cttgacagtga | gccgaga | | 1367 |

<210> 12317
 <211> 261
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 12317 | | | | | | |
| ggatagtgag | gtcaggagat | cgagaccatc | ctggctaaca | cggtgaaacc | ccctctctac | 60 |
| taaaaataca | aaaaattagc | cgggcgtggt | agcgggcgcc | tgtagtcca | gctactcggg | 120 |
| aggctgaggc | aggagaatgg | cgtgaacccg | ggaggcggag | cttgacagtga | gccgagatcg | 180 |
| cgccactgca | ctccagcctg | ggcgacagag | cgagactccg | tctcaaaaaa | aaaaaaaaaa | 240 |
| aaaaaagaaa | aagggataaa | a | | | | 261 |

<210> 12318
 <211> 312
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 12318 | | | | | | |
| gtcctggggc | gggcgcggtg | gtcacgcct | gtaatcccag | cactttggga | ggccgaggcg | 60 |
| ggcggatcac | gaggtcagga | gatcgagacg | atcccggcta | aaacggtgaa | accccgctctc | 120 |
| tactaaaaat | acaaaaaatt | agccgggcgt | agtgccgggc | gcctgtagtc | ccagctactt | 180 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gggaggctga | ggcaggagaa | tggcgtgaac | ccgggaggcg | gagcttgag | tgagccgaga | 240 |
| tcccgcact | gcactccagc | ctgggggaca | gagcgagact | ccgtctcaaa | aaaaaaaaa | 300 |
| aaaaagactg | tc | | | | | 312 |

<210> 12319
 <211> 158
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12319 | | | | | | |
| gcctgtagtc | ccagctactc | gggaggctga | ggcaggagaa | tggcatgaac | ccaggaggcg | 60 |
| gagcttgag | tgagcagaga | tgcgcgcact | gcactccagc | ctgggcaaca | gagcgagact | 120 |
| ctgtctcaga | aaaaaaaaa | aaaaagaaaa | aagaaaa | | | 158 |

<210> 12320
 <211> 237
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12320 | | | | | | |
| aggtcaggag | atggagacca | tcttggttaa | catggtgaaa | ccccgtctct | actaaaaata | 60 |
| caaaaaatta | gccgggctg | gtggcaggcg | cctgtagtcc | cagctactcg | ggaggctgag | 120 |
| gcaggagaat | ggcgtgaatc | cagggtggagc | ttgcagttag | ctgagatcgc | gccactgcac | 180 |
| tccagcctgg | gtgacagagt | gagactccat | ctcaaaaaa | aaaaaaaaa | aaaaaga | 237 |

<210> 12321
 <211> 191
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12321 | | | | | | |
| aaaaaacaaa | aaattagccg | ggcgtagtgg | cgggcgcctg | tagtcccagc | tacttgggag | 60 |
| gctgaggcag | gagaatggcg | tgaacccggg | aggcggagct | tgcagttagc | cgagatcccg | 120 |
| ccactgcact | ccagcctggg | cgacagagcg | agactccgtc | tcaaaaaaa | aaaaaaaaa | 180 |
| aaaaaaagtt | a | | | | | 191 |

<210> 12322
 <211> 193
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12322 | | | | | | |
| cgggcgtggt | agcgggagcc | tgtagtccca | gctactcggg | aggctgaggc | aggagaatgg | 60 |
| cgtgaacccg | ggaggcggag | cttgtagtga | gccgagatcg | cgccactgca | ctccagcctg | 120 |
| ggcgacagag | cgagactccg | tctcaaaaaa | aaaaaaaaa | aaaaaaaaa | aaaaattgac | 180 |
| tcctaataca | aaa | | | | | 193 |

<210> 12323
 <211> 195
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12323 | | | | | | |
| aaatacaaaa | attagccggg | cgtagtgggtg | ggcgcctgta | gtcccagcta | ctcgggaggc | 60 |
| tgaggcagga | gaatggcgtg | aaccggggag | gcggagcttg | cagttagccg | agatcccggc | 120 |
| actgcactcc | agcctgggag | acagagcgag | actccgtctc | aaaaaaaaa | aaaaaaaga | 180 |

taattctaac aaaca

195

<210> 12324
<211> 297
<212> DNA
<213> Homo sapiens

<400> 12324
gtgCGgtggc tcacgcctgt aatcccagca ctttgggagg ccaagccggg cggatcatga 60
ggtcaggaga tcgagaccat cctggctaac acggtgaaac cctgtctcta ctaaaaatac 120
aaaaaattag ccgggcgtgg tggcgggtgc ctgtagtccc agctactcgg gaggccgagg 180
caggagaatg gtgtgaaccg gggagggtgga gcttgacagt agccgagatc gggccactgc 240
actccagcct gggcgacaga gcaagactct gtctcaaaaa aaaaaaagaa atggaaa 297

<210> 12325
<211> 182
<212> DNA
<213> Homo sapiens

<400> 12325
tactaaaaat acaaaaagtt agccgggcca agtggcgggc gcctgtagtc ccagctactc 60
gggaggctga ggcaggagaa tggcgtgaac ccgggaggcg gagcttgtag tgagccgaaa 120
tcgcgccact gcactccagc ctgggtgaca gagcgagact ccgtctcaaa aaaaaaaaaa 180
aa 182

<210> 12326
<211> 323
<212> DNA
<213> Homo sapiens

<400> 12326
aaaaaactat ttttcggccg ggggggggtg atcacgcctg taatcccagc actttgggag 60
gccgaggcgg gcagatcacg aggtcaggag atcgagacca tcctggctaa cacggtgaaa 120
ccccgtctct actaaaaaaaa caaaaaatta gccgggcgtg gtagcgggag cctgtagtcc 180
cagctactcg ggaggctgag gcaggagaat ggcgtgaacc cgggaggcgg agcttgtagt 240
gagccgagat cgcgccactg cactccagcc tgggcgacag agcgagactc cgtctcaaaa 300
aaaaaaaaaa aaaaaaacia aaa 323

<210> 12327
<211> 183
<212> DNA
<213> Homo sapiens

<400> 12327
gaaaaattta gccgggcgtg gtggcgggag catgtagtcc cggctactcg ggaggctgag 60
gcaggagaat ggcgtgaacc cgggaggcgg agcttgtagt gagccgagat ggcgccactg 120
cactccagcc tgggcgacag agcgagactc cgtctcaaaa aaaaaaaaaa aaataataat 180
gaa 183

<210> 12328
<211> 136
<212> DNA
<213> Homo sapiens

<400> 12328
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgtag tgagccgaga ttgtgccact 60

gcactccagc ctgggcgaca gagtgagact ccgtctcaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaa 136

<210> 12329
 <211> 279
 <212> DNA
 <213> Homo sapiens

<400> 12329
 cacttttgga ggccgaggcg ggccgatcac gaggtcagga gatcgagacc attctggcta 60
 acacggtgaa acccgtctc tactaaaaat acaaaaaatt agccgggctt ggtagcgggc 120
 gcctgtagtc ccagctactc gggaggctga ggcaggagaa tggcgtgaac ccgggaggcg 180
 gagcttgtag tgagccgaga tcgcgccact gcactccagc ctgggcgaca gagcgagact 240
 ccgtctcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaga 279

<210> 12330
 <211> 243
 <212> DNA
 <213> Homo sapiens

<400> 12330
 tcacgaggtc aggagatcga gaccatcctg gctaacacgg tgaaaccccg tctctactaa 60
 aaatccaaaa aattagccgg gcgtggtggt gggcgccctgt agtcccagct actcgggagg 120
 ctaaggcaga agaattggcag gaacctggga ggcggagctt gcagttagcc gagatcacgc 180
 cactgcactc cagcctgggc gacagagcga gactccgtct caaaaaaaaaa aaaaaaaaaa 240
 att 243

<210> 12331
 <211> 202
 <212> DNA
 <213> Homo sapiens

<400> 12331
 ctactaaaaa tacaaaaaat tagccgggcy tggtagcggg cgctcttagt cccagctact 60
 cgggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca gtgagccgag 120
 atcgcgccac tgcactccag cctgagtgac agagcgagac tccgtctcaa aaaaaaaaaa 180
 aaaaaaaaaa gttaatatgt aa 202

<210> 12332
 <211> 192
 <212> DNA
 <213> Homo sapiens

<400> 12332
 aatacaaaaa attagccggg cgtagtggcg ggcgccctgta gtcccagcta cttgggaggc 60
 tgaggcagga gaatggcgtg aaccggggag gcagagcttg cagttagccg agatcccgcc 120
 actgcactcc agcctgggcy acagagcgag actccgtctc aaaaaaaaaa aaaaaaaag 180
 aagtagacaa aa 192

<210> 12333
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 12333
 gggcgtggtg gcggggcgct gtagtcccag ctactcggga ggctgaggca ggagaatggc 60

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gtgaacccgg | gagggcggagc | ttgcagtgag | ctgagatcac | cccactgcac | tccagcctgg | 120 |
| gcgacagagt | gagactctgt | ctcaaaaaaa | aaa | | | 153 |

<210> 12334
 <211> 300
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12334 | | | | | | |
| gctcacgcct | gtaatcccag | cacttttggga | ggccgaggcg | ggcggatcac | gaggtcagga | 60 |
| gatcgagacc | atcctggcta | acacggtgaa | accccatctc | tactaaaaat | acaaaaaatt | 120 |
| agccggggcgt | ggtagcgggc | gcctgtagtc | ccagctactc | gggaggctga | ggcaggagaa | 180 |
| tggcgtgaac | ccgggaggcg | gagccttgca | tgagccgaga | tcgcgccact | gcactccagc | 240 |
| ctgggcgaca | gagcgagact | ccgtctcaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaattaa | 300 |

<210> 12335
 <211> 150
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12335 | | | | | | |
| ggcgctgta | gtcccagcta | ctcgggaggc | tgaggcagga | gaatggcgtg | aacccgggag | 60 |
| gcgagagctt | cagtgaagct | agatcgcgcc | actgcactcc | agcctgggag | acagagcgag | 120 |
| actctgtctc | aaaaaaaaaa | aagaattggc | | | | 150 |

<210> 12336
 <211> 322
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|-------------|------------|-----|
| <400> 12336 | | | | | | |
| cggccggggcg | cggtgggctga | cgctgtgaat | cccagcactt | tgggaggccg | aggcggggcg | 60 |
| atcacgaggt | caggagatcg | agaccatcct | ggctaacacg | gtgaaacccc | gtctctacta | 120 |
| aaaatacaaa | aaattagccg | ggcgtggtag | cgggcgcctg | tagtcccagc | tactcgggag | 180 |
| gctgaggcag | gagaatggcg | tgaacccggg | aggcggagct | ttcagtgagc | cgagatcgcg | 240 |
| ccactgcact | ccagcctggg | cgacagagcg | agactccgtc | tcaaaaaaaaa | aaaaaaaaaa | 300 |
| aaaaaaaaaa | aaaaaaaaat | tc | | | | 322 |

<210> 12337
 <211> 142
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 12337 | | | | | | |
| cccagctact | caggaggctg | aggcaggaga | atggcgtgaa | cccgggaggc | ggagcttgca | 60 |
| gtgagccgag | atcccgccac | tgcactccag | cctggggcgac | agagcgagac | tccgtctcaa | 120 |
| aaaaaaaaaa | aaaaaaaaat | ga | | | | 142 |

<210> 12338
 <211> 181
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|-----|
| <400> 12338 | | | | | | |
| caaaagtttag | ccggggcgtag | tggcggggcg | ctgtgggtccc | agctactcgg | gaggctgagg | 60 |
| caggagaatg | gcgtgaaccc | gggaggcgga | gcttgacagt | agccgagatc | gcgccactgc | 120 |

actccagcct ggggtgacaga gcgagactcc gtctcaaaaa aaaaaaaaaa aaaaaaagat 180
t 181

<210> 12339
<211> 123
<212> DNA
<213> Homo sapiens

<400> 12339
aggcaggaga atggcgtgaa cccgggagggc ggagcttgca gtgagccgag atccccgccac 60
tgcactccag cctgggagcag agagcgagct ccgtctcaaa aaaaaaaaaa aaaaatgctg 120
tta 123

<210> 12340
<211> 270
<212> DNA
<213> Homo sapiens

<400> 12340
tgggaggccg aggcaggtgg atcacgaggt caggagatcg agaccatcct ggctaacacg 60
gtgaaacccc gtctctacta aaaatacaaa aaattagccg ggcgtggtgg cgggcgcctg 120
tagtcccagc tactcgggag actgaggcag gagaatggcg tgaacccggg aggcggagct 180
tgcagtgagc cgagatcgcg cccctgcact ccagcctggg cgacagagcg agactccgcc 240
tcgaaaaaac aaaaacaaaa acacaaagtc 270

<210> 12341
<211> 237
<212> DNA
<213> Homo sapiens

<400> 12341
catcctggct aacacggtga aacccccgtct ccactaaaaa tacaaaaaat tagccggggcg 60
tgggtggcggg cgcctgtagt cccagccact cgggaggctg aggcaggaga atggcgtgga 120
cccgggagggc ggagcttgca gtgagcggag atcgcgccac tgcactccag cctgggagcag 180
tgagcaggac tccgtctcaa aaaaaaaaaa aagaaaagaa aaaaagaaag aaagaaa 237

<210> 12342
<211> 214
<212> DNA
<213> Homo sapiens

<400> 12342
ccccgcctct actaaaaata caaaaaatta gccgggagcgtg gtggcggggcg cctgtggtcc 60
cggctactcg ggaggctgag gcaggagaat ggcgtgaacc cgggaggcgg agcttgagct 120
gagccgaggt cgcgccactg cactccagcc tgggcgacag agcgagactc cgtctcaaaa 180
aaaaaaaaaa aaaaaaaaaa aagattacac aata 214

<210> 12343
<211> 154
<212> DNA
<213> Homo sapiens

<400> 12343
tgtagtccca gctactcggg aggctgagggc aggagaaatgg cgtgaaccca ggaggccgag 60
gttgagctga gctgagatag caccactgca ctccagcctg ggcgacagag cgagactccg 120
tctcaaaaaa aaaaaaaaaa aaaaaaaggg ccgc 154

<210> 12344
 <211> 243
 <212> DNA
 <213> Homo sapiens

<400> 12344
 acgagatcag gagatcgaga ccatcctggc taacacggtg aaaccctgtc tctactaaaa 60
 atacataaaa ttagccgggc gtgttggcgg gcgcctgtag tcccagctac tcgggaggct 120
 gaggcaggag aatggcgtga acccgggagg tggagcttgc agtgagctga gattgcgcca 180
 ctgcactcca gcctgggcga cagagcgaga ctctgtctca aaaaaaaaaa attaaattaa 240
 att 243

<210> 12345
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 12345
 gccgggcgcg gtggctcacg cctgtaatcc cagcactttg ggaggccgag gcgggaggat 60
 catgaggtca ggagatcgag accatcctgg ctaacacggt gaaaccccat ctctactaaa 120
 aatacaaaaa attagccagg cgtgggtggcg ggcgctgtga gtcccagcta ctcgggaggc 180
 tgaggcagga gaatggcgtg aacctgggag gcggagcttg cagtgagccg agatcgcgcc 240
 actgaactcc agcctgggag acagagcgag actccgtctc aaaaagaaaa taaaaaagaa 300
 aaatttc 307

<210> 12346
 <211> 166
 <212> DNA
 <213> Homo sapiens

<400> 12346
 ggcgtgcgcc tgtagtccca gctactcggg aggctgaggc aggagaatgg cgtgaacccg 60
 ggaggcggag cttgcagtga gccgagatcg tgccactgca ctccagcctg ggtgacagag 120
 caagactccg tctcaaaaaa aaaaaacaaa aaaaacatgt aggagc 166

<210> 12347
 <211> 142
 <212> DNA
 <213> Homo sapiens

<400> 12347
 cctcagctac tcgggaggct gaggcaggag aatggcgtga acccgggggg tggagcttgc 60
 agtgagccaa gatcgcgcca ctgcactcca gcctgggtga cagagcgaga ctccgtctca 120
 aaaaaaaaaa aaaaaaaact ta 142

<210> 12348
 <211> 131
 <212> DNA
 <213> Homo sapiens

<400> 12348
 tttttttttt gagacagagt ctgcgtctgt cgcccaggct ggagtgtagt ggcgcatct 60
 tggctcactg caagctccgc ctcccgggtt cacaccattc tcctgcctca gcctcccaag 120
 tagctgggac t 131

<210> 12349
<211> 214
<212> DNA
<213> Homo sapiens

<400> 12349
ttctgtttgt tagttttcct tctaacagtc aggccctct tctgcaggtc tgctggagtt 60
tgctgggggt ccactccaga ccctgtttgc ctgggtatca ccagcagagg ctgcagaaca 120
gcaaagattg ctgcctgctc cttcctctgg aagcttcgtc ccagaggggc acccagcaga 180
tgccagccag agctctcctg tatgaggtgt ctgt 214

<210> 12350
<211> 268
<212> DNA
<213> Homo sapiens

<400> 12350
cggccgaatt ctgccctccg ctaacgagct atagctttgt ggaaatgggc gagtggcggtg 60
cccttgtagag cctcaggggc gcatctgtaa aatgggcata actgtcatgc ctgtctttaa 120
gaacagcctt gggggtaaat gagtggaaact catggaaaga tctcagccca caaccttcca 180
cagaacaggc gcttctcaca cagtaagtag caggagtgca gaggctgcag gcatgaatcc 240
agccagactg cctgggttca agtcccag 268

<210> 12351
<211> 906
<212> DNA
<213> Homo sapiens

<400> 12351
ccccagagtg tgatgttctt cttcctgtgt ccatgtgttc tcattgttca attcccacct 60
atgagtgaga atatacagtg tttgggtttt tgttcttgcg atagtttact gagaatgatg 120
atttccaact tcatccatgt ccctacaaag gacatgaact catcattttt tatggctgca 180
tagtattcta tgggtgtatat gtgccacatt ttcttaatcc agtctattat tgttggacat 240
ttaggttggg tccaagtctt tgcaatagtg aatagtgccg caataaacat acgtgtgcat 300
gtgtccttat agcagcatga tttatagtc tttgggtata tagcaaagga tggctgggtc 360
aaatgggtatt tctagttcta gatccctgag gaatcgccac accgacttcc acaatgggtg 420
aactagttta cagtcccacc aacagtgtaa aagtgttctt atttctccac atcctctcca 480
gcacctgttg tttcctgact ttttaatgat tgccattcta actggtgtga gttgggtatc 540
cattgtgctt ttgatttgca tttctctgat agccagtgat ggtgagcatt ttttcatgtg 600
ttttttggct gcataaatgt cttcttttga gaaatgtctg ttcattgtcct ttgcccactt 660
tttgatgggg ttgtttgggt ttttcttgta aatttggttg agttcattgt agattctgca 720
tgtagccct ttgtcagatg agtaggttgc gaaaattttc tcccattttg taggttgcc 780
attcactctg atggtagttt cttttgctgt gcagaagctc tttagtttaa ttagatccca 840
tttgtcaatt ttggcttttg ttgccattgc ttttgatgtt ttagacgtga agtccttgcc 900
catgcc 906

<210> 12352
<211> 368
<212> DNA
<213> Homo sapiens

<400> 12352
ggcatgggca aggacttcat gtctaaaacg ccaaaagcaa tggcaacaaa agacaaaatt 60
gacaaatggg atctaattaa actaaagagc ttctgcacag caaaagagtc taccatcaga 120
gtgaacaggc aacctataca atgggagaaa aattttgcaa tctactcatc tgacaaaggg 180
ctaatatcca gaatctacag tgaactcaaa caaatttaca agaaaaaac aaacaacccc 240
atcaaaaagt gggcaaagta tatgaacaga cacttctcaa aagaagacat ttatgcagct 300

aaaagacaca tgaaaaaatg cccatcatca ctggccatca gagaaatgca aatcaaaacc 360
acaatgag 368

<210> 12353
<211> 278
<212> DNA
<213> Homo sapiens

<400> 12353
gacgacaatg tttatttctca ttagtcagac gaactgcagc acaagtgttt caaagaggaa 60
ccccaagaac tcccaggctt gtaggaagca tctgatttta cataagtttg cacagtagga 120
aactgaggtc ctcggggagg aacaaagcaa cttatgatca gacaaatgag tctactagtag 180
agctgaaatg agaagccaga tctcctaacc actcccacac cccatcacag tgcctcactg 240
cgtctcttac tgggtgggctt gattgctttc caaggcca 278

<210> 12354
<211> 131
<212> DNA
<213> Homo sapiens

<400> 12354
tttttttttt gagatggagt ctgcgtctgt cgcccaggct ggagtgcagt ggcgggatct 60
cggctcactg caagctccgc ctcccgggtt cagccattc tctgcctca gcctcccaag 120
tagctgggac t 131

<210> 12355
<211> 2925
<212> DNA
<213> Homo sapiens

<400> 12355
ctcccagagta gctgggacta caggcgcccg ccaccacgcc tggctaattt tttgtatttt 60
tagtagagac ggggtttcac cgcgtagcc aggatggtct tgatctcctg acctcgtgat 120
ccgcccgtct cggcctccca aagtcctggg attacaggcg tgagccaccg cgcccggctg 180
agatgggtat tattaagaaa ttaagatgtg gattaccagg gtaagtcata tttcaatgtg 240
caacctctgc aagtcacacag ggtgtgatat ggacattaag gagatctatg gacgaatagc 300
gtatgatacc ttgacaagtt gacaaaatgt aaaatagttg aatggccata gaaaaaacc 360
agcttttttag ccccataggc cgagggatc aggagggtg gctacgggca ttttggaatg 420
gaagatgttg taccaacaaa tcaagcttag gttcctggca atttgccac atataatatg 480
tgaaagttca gatgtgaaat aaatctgcgg ctaatagtaa gaacctagcc acaggagtta 540
aaacttacgg ttctgggacc agatggactg ccttctaate ttagtcttac tacatttttag 600
cggtaaaacc ttcagcaagt tattttagcct ccagcatctc agttttctca tctgtaaaat 660
ggtgataatg ctactcttac attgggttgt agtaggataa aaggagaaaa cgtatgtaaa 720
ggatttagta gaaacttatt aaaattaagc aattattatt tctcaattct aagattctaa 780
cctgcaaaag gcataaggca gctgctgaga acagggtgag aagataggga ttcggtcagg 840
aaaagtcttg tttccctggt gctgttggtg gttttgtttg ctcatatttg tgtttttttt 900
attaatcatt ttcacttggt tttattgaca agcttaatca ataatgccat tgacatttag 960
taaaagtaaa tttccttaag tgatctccca ggtagcaatg tttattcatt atgtgtggag 1020
tagagatagg aattatttta ttgctgcaaa tattttatta ttgggttttc aagtttttaa 1080
agtaatttta attttttaat ttttgtgagt atatagtaag tgcacatatt tatggggtac 1140
atgagatatt ttgatacagg catatgatgt gtaataatca catcagggtg aacagggtta 1200
gcatcacctc aagcatttgt ccttttttgt attacaaaga atctaattat actcttttag 1260
ttatttttaa atgtacaata aattatttgt gactatagtt ttgccactgc aaacaataga 1320
aggcttcctg atacagctc ctatgcattg gaggttctatg gcagaattcc taaagttttt 1380
aagtttcatg agatggctaa attttggtta atatgatact ttctttgaac agatgctaca 1440
gaggccaata taaaggagtg taacagagt acacctgtga tcagtatctc tccaactaca 1500
aagagtgtcc cttaaatttc ttctgtgtgg ttcctctttt tttttttttt tttttttgag 1560
acgaagtctc gctctgtcgc ccaggctgga gtgcagtggc gcgaacttgg ctgcgtgcaa 1620

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|------|
| gctccgcctc | ccgggttcac | tccattctcc | tgcctcacc | tctcaagtag | ctgggactac | 1680 |
| aggtgcctgc | caccactccc | ggctaatttt | tttttgcat | tttagtgaga | gatgggggtt | 1740 |
| cactgtgtta | gccaggatgg | tctccatctc | ctgacctcat | gatccagccg | ccttggcctc | 1800 |
| ccaaagtgc | cggattacag | gcgtgagcca | ccgcgctcgg | cctgtgtggc | tcctcttaag | 1860 |
| taatactctg | cttcgtccat | ataagcagag | gtcagaactg | gctaagaatt | tctttatgtg | 1920 |
| tgtttatcct | gatgttttcc | tactgtcact | tttcttttct | tatggattag | cattgaggga | 1980 |
| atggtcagat | ggtgcctgcg | tgagtctgat | tgaacattt | tagcggcggg | gtgcgggggt | 2040 |
| tgatggcatg | tgcaatagtt | taggatat | gagttagtgg | cagaatgtag | acatgagggt | 2100 |
| gagtagagag | tgcgtagcag | agcaagcaat | tcaggaaatct | atgttggtta | attacttttg | 2160 |
| ttttgtggac | attttattct | acctgaaaag | attatctagg | aactacagaa | attaatgacg | 2220 |
| tgtagtggaa | actttgcaca | gtgtaagtgt | tatccattta | cttctcttag | tttccaatac | 2280 |
| aatgactctc | ctggtagctg | tcatacatga | taaatataat | ttcgtaata | aaattatatt | 2340 |
| ttatataatt | gcgtacttta | aacaagtgat | caatataact | cagttataaa | tgtacagtaa | 2400 |
| caaagatcaa | tggataataa | atacttctgc | gttcattttc | atggatacat | tctatttttg | 2460 |
| tttgtctcac | aagcagtaat | cagactatga | atcatgatat | agctccataa | acacttactt | 2520 |
| tatagcaatt | cactgatata | tgctccacca | aaaaaaatta | agagacggat | acaagcaatt | 2580 |
| taaagcttct | gtgtgtgtgt | gcatgcaacc | gatgtgtatg | gctttttttt | tttttttttt | 2640 |
| ttttgacaca | gagtgtcgct | ctgtcgccca | ggctggagtg | cagtggcgtg | atctccgctc | 2700 |
| actgcaagct | ccgcctgcct | ggttcacgcc | attctcctgc | cttagcctcc | caagtagctg | 2760 |
| ggacttcagg | cgctgcacac | cacgcctggc | taattttttg | tatttttagt | agagacgggg | 2820 |
| tttcaccgtg | ttatccagga | tggctctccat | ctcctgacct | cgtgatccac | ctgcctccgc | 2880 |
| ctcccaaagt | gctgggatta | caggcttgag | cctcctcgcc | cggcc | | 2925 |

<210> 12356
 <211> 4706
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|-------------|------------|------|
| <400> 12356 | | | | | | |
| tattattata | ctttaagttt | cagggtacat | gtgcacaatg | tgcaggtttg | ttacacatgt | 60 |
| atacatgtgc | catgtttggtg | tgctgcaccc | atcaactcgt | catttagcat | tagatatatc | 120 |
| tcctaattgct | atccctcccc | actcccccta | ccccacaaca | gtccccgggtg | tgtgatgttc | 180 |
| cccttctctgt | gtccatgtgt | tctcattggt | caattctcat | ctatgagtga | gaacatgtgc | 240 |
| tgtttgggtt | tttgtccttg | caatagtttg | ctgagaatga | tggtttccag | cttcatccat | 300 |
| gtccctacaa | aggacatgaa | ctcatccttt | tttatggctg | catagtattc | catggtgtat | 360 |
| atgtgccaca | ttttcttaat | ccagtctatc | attgttggtg | atttcgggtg | gttccaagtc | 420 |
| tctgtctattg | tgaatagtgc | cgcaataaac | atacatgtgc | atgtgtcttt | atagcagcat | 480 |
| gattttacaat | cctttgggta | tataccagtg | aatgggatgg | ctgggtcaaa | tggattttct | 540 |
| agttctagat | ccctgaggaa | tcgccacacc | gacttccaca | atgggtgaac | tagtttacag | 600 |
| tcccaccaac | agtgtaaaag | tgttcctatt | tctccacatc | ctctcagcac | ctgttggttc | 660 |
| ctgacttttt | aatgatctcc | attctaactg | ttgtgagatg | gtatctcatt | gtgggtttga | 720 |
| tttgcatctc | tctgatggcc | agtgatgatg | agcacttttt | catgtgtttt | ttggctgcat | 780 |
| aaatgtcttc | ttctgagaag | tatctgttca | tatcctttgc | ccactttttg | atgggggttg | 840 |
| ttgttttttt | cttgtaaaatt | tgtttgagtt | cattgtagat | tctggatatt | agccctttgt | 900 |
| cagatgagta | ggttgcaaaa | actttctccc | attctgtagg | ttgcctgttc | actctgatgg | 960 |
| tggtttcttt | tgctgtgcag | aagctcttca | gtttaattag | atcccatttg | tcaattttgt | 1020 |
| cttttggtgc | cattgctttt | ggtgttttag | acatgaagtt | cttaccatg | cctatgtcct | 1080 |
| gaatggtatt | gcctagggtt | tcttctaggg | tttttatggt | tttaggtcta | acatgtaagt | 1140 |
| ctttaatcca | tcttgaatta | atttttgtat | aagggtgaag | gaagggatcc | agtttcagct | 1200 |
| ttctacatat | ggctagccag | ttttcccagc | accattttat | aaatagggaa | tcctttcccc | 1260 |
| attgcttggt | tttgtcaggt | ttgtcaaaga | tcagatagtt | gtagatatgt | gacattat | 1320 |
| ctgagggtct | tgttctgttc | cattggtcta | tatctctgtt | ttggtaccag | taccatgctg | 1380 |
| ttttgggttac | catagccttg | tagtatagtt | tgaagtcagg | tagtggttatg | cctccagctt | 1440 |
| tgttcttttg | gcttaggatt | gacttggcaa | tgtgggctct | tttttggttc | catatgaact | 1500 |
| ttaaagtatg | tttttccaat | tctgtgaaga | aagtcattgg | tagcttgatg | ggaatggcac | 1560 |
| tgaactctta | aatgaccttg | ggcagtatgg | ccattttcac | gatattgatt | cttctaccc | 1620 |
| atgagcatgg | aatgttcttc | catttggttg | tatccccctt | tatttcattg | agcagtggtt | 1680 |
| tgtagtcttc | cttgaagagg | tccttcacat | cccttgtaag | ttggattcct | aggatattta | 1740 |
| ttctctttga | agcaattgtg | aatgggagtt | cactcatgat | ttggctctct | gtttgtctgt | 1800 |
| tattggtgta | taagaatgct | tgtgat | gcacattgat | tttgtatcct | gagactttgc | 1860 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| tgaagttgct | tatcagctta | aggagatttt | gggctgagat | gatgggggtt | tctagatata | 1920 |
| caatcatgtc | atctgcaaac | agggacaatt | tgacttcttc | ttttcgtaat | tgaatgccct | 1980 |
| ttatttcctt | ctcctgcttg | attgccctgg | ccagaacttc | cacactatgt | tgaataggag | 2040 |
| tggtgagaga | gggcatccct | gtcttgtgcc | agttttcaaa | gggaatgctt | ccagtttttg | 2100 |
| cccattcagt | atgatattgg | ctgtgggttt | gtcatagcta | gctcttatta | ttttgagata | 2160 |
| catcacatca | atacctaatt | tattgagagt | ttttagcatg | aagcattggt | gaattttgtc | 2220 |
| aaaggctttt | tctgcatcca | ttgagataat | catgtgggtt | ttgtcttttg | ttctgtttat | 2280 |
| atgctggatt | acgtttattg | attttcgtat | gttgaaccag | ccttgcatcc | cagggaggaa | 2340 |
| gccactaga | tcatgggtga | taaacttttt | gatgtgctgc | tgtatttggt | ttgccagtat | 2400 |
| tttattgagg | atttttgcat | caatgttcat | caaggatatt | ggtctaaaa | tctctttttt | 2460 |
| ggttgtgtct | ctgccaggct | ttggtatcag | gatgattctg | gccacataaa | atgagttagg | 2520 |
| gaggattccc | tctttttcta | ttgattggaa | tagtttcaga | aggaatggta | ccagctcctc | 2580 |
| cttgtacctc | tggtagaatt | cggctgtgaa | tccatctggt | cctggacttt | ttttggtttg | 2640 |
| taagctattg | attatttcct | caatttcagt | gcctgttatt | ggtatattca | gagattcaac | 2700 |
| ttcttcctgg | tttagtcttg | ggaggatgta | tgtgtcaagg | aatttatcca | tttcttctag | 2760 |
| attttgtagt | ttatttgcac | agagggtgtt | atagtattct | ctgatggtag | tttgtatttc | 2820 |
| tgtgggatcg | gtgggtgatat | cccctttatc | attttttatt | gcgtctattt | gattcttctc | 2880 |
| tcttttcttc | tttattagtc | ttgctgtcta | tcaattttgt | tgatcttttc | aaaaaaccag | 2940 |
| ctcctgaatt | cattaatttt | ttgaagggtt | ttttgtgtct | ctatttcctt | cagttcttct | 3000 |
| ctgatcttag | ttatttcttg | ccttctgcta | gcttttgaat | gtgtttgctc | ttgcttctct | 3060 |
| agttctttta | attgtgatgt | taggggtgtca | attttagatc | tttctgctt | tctcttttgg | 3120 |
| gcatttagtg | ctataaaatt | ccctctacac | actgctttga | atgtgtccca | gagattcttg | 3180 |
| tatgttgtct | ttgttctcat | tggtttcaaa | gaacaccttt | atttctgcct | tcatttcggt | 3240 |
| atgtaccag | cagtcattca | ggagcaggtt | gttcagtttc | catgtagtgt | agtgggtttg | 3300 |
| agtgaagttc | ttaatcctga | gttctagtgt | gattgcactg | tggtctgaga | gacagtttgt | 3360 |
| tataatttct | gttctttgac | atttgctgag | gagtgcctta | cttccaacta | tgtgggtcaat | 3420 |
| tttggaatag | gtgtgggtgtg | gtgctgaaaa | gaatgtatat | tctgttgatt | tgggggtggag | 3480 |
| agttctgtag | atgtctatta | gttccgcttg | gtttagagct | gagttcaatt | cctgggtatc | 3540 |
| cttggttaact | ttctgtcttg | ttgatctgtc | taatgttgac | agtgggggtg | taaagtctct | 3600 |
| gattattatt | gtgtaggagt | ctaagtctct | ttgtagttca | ctaaggactt | gctttatgaa | 3660 |
| tctgggtgct | cctgtattgg | gtgcatatat | atttaggaca | gtttgctttt | cttgttgaat | 3720 |
| tgatcccttt | accattatgt | aatggccttc | tttgtctctt | ttgatctttg | ttgggtttaa | 3780 |
| gtctgtttta | tcagagacta | ggattgcaat | ccctgccttt | ttctgttttc | catttgcttg | 3840 |
| gtagatcttc | ctccatccct | ttatttttag | cctatgtgtg | tgtctgcacg | tgagatgggt | 3900 |
| ttcctgaata | cagcacactg | atgggtcttg | actctttatc | caatttgcca | gtctgtgtct | 3960 |
| tttaattgga | gcatttagcc | tatttacatt | caaagttagt | attgtttatat | gtgaatttga | 4020 |
| tcctgtcatt | attatgtcag | ttggttattt | tgctcattag | ttgatgcagt | ttcttcctag | 4080 |
| cctcgatggg | ctttacaatt | tggcatgttt | ttgcagtggc | tggtactggg | tggtcccttc | 4140 |
| catgttttag | gcttcttctc | tcaggagctc | ttttaggaca | ggcctgggtg | tgacaaaatc | 4200 |
| tctcagcatt | tgcttgtctg | taaagtattt | tatttctcct | tcacttatga | agcttagttt | 4260 |
| ggctggatat | gaaattcttg | gttgaaaatt | cttttcttta | agaatgttga | atattgcccc | 4320 |
| ccactctctt | ctggcttgta | gagtttctgc | caagagatca | gctgttagtc | tgagggtgctt | 4380 |
| ccctttgttg | gtaacccgac | ctttctctct | ggctgccctt | aacatttttt | ccttcatttc | 4440 |
| aactttgggtg | aatctggcaa | ttatgtgtct | tggagttgct | cttctcgagg | attatctctg | 4500 |
| tggtgttctc | tgtatttctc | gaatttgaat | gttggcctgc | cttgctagat | tgggggaagtt | 4560 |
| ctcctggata | atatcctgca | gagtgttttc | caacttgggt | ccattctccc | cgtcactttc | 4620 |
| aggtacacca | aacagacgta | ggtttgggtc | tttcacatag | tcccatattt | cttgagggct | 4680 |
| ttgtttcttt | ttattctttt | ttctct | | | | 4706 |

<210> 12357

<211> 1548

<212> DNA

<213> Homo sapiens

<400> 12357

| | | | | | | |
|------------|------------|------------|------------|-------------|-------------|-----|
| agcagctctt | gcagtgggtg | ggcgacttgc | tgctgtacct | gctggccagc | ctacccaacc | 60 |
| aggtgcgcca | tgctctcccc | taaggccccg | ccccccacct | gggcccccat | ctcatcagga | 120 |
| ccccgcttcc | ctgccccctg | ccctcaaaac | cacctcagcc | ccgccccctg | ttggagttccc | 180 |
| gccccctact | ggagtccccg | ccctacttgg | agtcgccccc | ctgcttggag | tcccacctca | 240 |
| gccccgcccc | tggttggagt | cccaccctca | cttggagctc | cacttctctga | gtctgtctct | 300 |

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|------|
| tcttaaacc | ccacttccta | gcccctgccc | acttcctagc | cctgccccac | ttcctagccc | 360 |
| tgccccac | cggagccctg | ccccatctcg | gagccctgcc | ccacctcgga | gccctcccc | 420 |
| acctcgagc | ctccccccac | ctcggagccc | tgccccac | cggagccctg | ccccacctcg | 480 |
| gagccctgcc | ccacctcgga | gcccctcccc | acctcgagc | cctccccac | ctcggagccc | 540 |
| tgccccac | cggagccctc | ccccacctcg | gagccctcct | ctccatgaag | cctctgctgt | 600 |
| aagaagcctt | tccttggcca | caccttcctt | gcccattctc | aaagccccgc | ctcccaggcc | 660 |
| ctgctccttc | tcagccccac | ccctacacga | aggccggttc | gccttgctcc | tgctgctgct | 720 |
| gccccaccc | cttaccctcc | ccagctccct | gcgcctgggg | tgggcgccct | tgaaatcaag | 780 |
| tctccatcca | cacctccacc | ttcagttttg | cggtctgtgc | gcccctgacc | agggtccaa | 840 |
| cctcgcccc | acccccccgc | cgggtacactc | tgctctgccc | cagctgtgat | ttcttctgcc | 900 |
| ccaccaccc | ggcttcaccc | tgccctgggg | cccgccttc | tccaccgcgc | ccatcacgga | 960 |
| cggtttgaag | tccctctctt | ctttttgtgg | ggcttttaggc | tgccaggggc | cacctctggg | 1020 |
| gcctccccct | ccctggctct | ctcagctccc | agtacagtca | ccaggggccc | gggcccgcag | 1080 |
| ctgtaggagg | gggcggctgc | tcctccacgt | gcagggtggg | atattggcct | cagccagagc | 1140 |
| ctcgtcttag | tcttgtggac | tctcagggat | gggacgactc | tgcaaattgg | gctgtcctgg | 1200 |
| gccctgcagg | gctctgagca | gcgtccccgg | catccacca | ctcgggtgca | gaagcacccc | 1260 |
| agtcctgacc | accacaaatg | tcccagaccc | tgcccattgc | cccccggtcg | gggttccacc | 1320 |
| gacccaaga | cacttcaccc | catcgccatc | tgccccccgc | cgccccagcc | acaccgatgc | 1380 |
| ctctttcggg | cagggttccc | tgctgaggcc | gggccacagc | tttctgcggg | acggcacctc | 1440 |
| gctgggcatg | cttcgggaat | tgatggtggt | catccgcac | tggggccttc | tgaagcccag | 1500 |
| ctgcctgccc | gtgtatacgg | ccacctagga | taccaggagc | agcatgtc | | 1548 |

<210> 12358
 <211> 4704
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| tattattata | ctttaagttt | cagggtacat | gtgcacaatg | tgcaggtttg | ttacacatgt | 60 |
| atacatgtgc | catgtttggtg | tgctgcaccc | atcaactcgt | catttagcat | tagatatatc | 120 |
| tcctaattgct | atcccccccc | actcccccta | ccccacaaca | gtccccgggtg | tgtgatgttc | 180 |
| cccttcctgt | gtccatgtgt | tctcattgtt | caattctcat | ctatgagtga | gaacatgtgc | 240 |
| tgtttggttt | tttgtccttg | caatagtttg | ctgagaatga | tggtttccag | cttcatccat | 300 |
| gtccctacaa | aggacatgaa | ctcatccttt | tttatggctg | catagtattc | catggtgtat | 360 |
| atgtgccaca | ttttcttaat | ccagtctatc | attgttggac | atttcggttg | gttccaagtc | 420 |
| tctgctattg | tgaatagtgc | cgcaataaac | atacatgtgc | atgtgtcttt | atagcagcat | 480 |
| gatttacaat | cctttgggta | tataccagat | aatgggatgg | ctgggtcaaa | tggtatttct | 540 |
| agttctagat | ccctgaggaa | tcgccacacc | gacttccaca | atgggtgaac | tagttttacg | 600 |
| tcccaccaac | agtgtaaaag | tgttcctatt | tctccacatc | ctctcagcac | ctgttggttc | 660 |
| ctgacttttt | aatgatctcc | attctaactg | ttgtgagatg | gtatctcatt | gtgggtttga | 720 |
| tttgcatttc | tgatgatggc | cagtgatgat | gagcattttt | tcatgtgttt | tttggttgca | 780 |
| taaagtctct | cttctgagaa | gtatctgttc | atatcctttg | cccacttttt | gatgggggtg | 840 |
| tttggttttt | tcttgtaaat | ttgtttgagt | tcattgtaga | ttctggatat | tagccctttg | 900 |
| tcagatgagt | aggttgcaaa | aactttctcc | cattctgtag | gttgccctgtt | cactctgatg | 960 |
| gtgggtttctt | ttgctgtgca | gaagctcttc | agtttaatta | gatcccattt | gtcaattttg | 1020 |
| gcttttggtg | ccattgcttt | tggtgtttta | gacatgaagt | tcttaccat | gcctatgtcc | 1080 |
| tgaatgggat | tgccatagggt | ttcttctagg | gtttttatgg | ttttagggtc | aacatgtaag | 1140 |
| tctttaatcc | atcttgaatt | aatttttgta | taagggtgtaa | ggaagggatc | cagtttcagc | 1200 |
| tttctacata | tggtatgcag | gttttcccag | caccatttat | taaataggga | atcctttccc | 1260 |
| cattgcttgt | ttttgtcagg | tttgtcaaag | atcagatagt | tgtagatatg | tgacattatt | 1320 |
| tctgagggct | ctgttctgtt | ccattgggtc | atatctctgt | tttggtacca | gtaccatgct | 1380 |
| gttttggtta | ccatagcctt | gtagtatagt | ttgaagtcag | gtagtgtgat | gcctccagct | 1440 |
| ttgttctttt | ggcttaggat | tgacttggca | atgtgggctc | ttttttgggt | ccatatgaac | 1500 |
| tttaaagtag | ttttttccaa | ttctgtgaag | aaagtcattg | gtagcttgat | gggaatggca | 1560 |
| ctgaatcttt | aaatgacctt | gggcagtatg | gccattttca | cgatattgat | tcttccatcc | 1620 |
| catgagcatg | gaatgttctt | ccatttggtt | gtatcccctt | ttatttcatt | gagcagtggt | 1680 |
| ttgtagttct | ccttgaagag | gtccttcaca | tcccttgtaa | gttggtattc | taggtatttt | 1740 |
| attctctttg | aagcaattgt | gaatgggagt | tcactcatga | tttggtctct | tgtttgctctg | 1800 |
| ttattgggtg | ataagaatgc | ttgtgatttt | tgcacattga | ttttgtatcc | tgagactttg | 1860 |
| ctgaagttgc | ttatcagctt | aaggagattt | tgggctgaga | tgatgggggt | ttctagatat | 1920 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| acaatcatgt | catctgcaaa | cagggacaat | ttgacttctt | cttttcgtaa | ttgaatgcc | 1980 |
| tttatttcct | tctcctgctt | gattgccctg | gccagaactt | ccacactatg | ttgaatagga | 2040 |
| gtggtgagag | agggcatccc | tgtcttgtgc | cagttttcaa | agggatgct | tccagttttt | 2100 |
| gcccattcag | tatgatattg | gctgtgggtt | tgtcatagct | agctcttatt | attttgagat | 2160 |
| acatcacatc | aataccta | ttattgagag | tttttagcat | gaagcattgt | tgaattttgt | 2220 |
| caaaggcttt | ttctgcatcc | attgagataa | tcatgtggtt | tttgtctttg | gttctgttta | 2280 |
| tatgctggat | tacgtttatt | gatttttcgta | tgttgaacca | gccttgcatc | ccagggagga | 2340 |
| agcccactag | atcatgggtg | ataaactttt | tgatgtgctg | ctgtatttgg | tttgccagta | 2400 |
| ttttattgag | gattttttgca | tcaatgttca | tcaaggatat | tggctctaaaa | ttctcttttt | 2460 |
| tggttgtgtc | tctgccaggc | tttgggtatca | ggatgattct | ggccacataa | aatgagttag | 2520 |
| ggaggattcc | ctctttttct | attgattgga | atagtttcag | aaggatgggt | accagctcct | 2580 |
| ccttgtacct | ctggtagaat | tgggtgtgta | atccatctgt | tcctggactt | tttttggttg | 2640 |
| gtaagctatt | gattatttcc | tcaatttcag | tgcctgttat | tggatatattc | agagatttcaa | 2700 |
| cttcttccctg | gttttagtctt | gggaggatgt | atgtgtcaag | gaatttatcc | atttcttcta | 2760 |
| gattttgtag | tttattttgca | tagagggtgtt | tatagtattc | tctgatggta | gtttgtattt | 2820 |
| ctgtgggcatc | gggtgtgata | tcccccttat | catttttttat | tgcgtctatt | tgattcttct | 2880 |
| ctcttttctt | ctttattagt | cttgctgtct | atcaattttg | ttgatctttt | caaaaaacca | 2940 |
| gctcctgaat | tcattaattt | tttgaagggt | tttttgtgtc | tctatttcct | tcagttcttc | 3000 |
| tctgatctta | gttatttctt | gccttctgct | agcttttgaa | tgtgtttgct | cttgcttctc | 3060 |
| tagttctttt | aattgtgatg | ttagggtgtc | aatttttagat | ctttcctgct | ttctcttttg | 3120 |
| ggcatttagt | gctataaatt | tccctctaca | cactgctttg | aatgtgtccc | agagattctg | 3180 |
| gtatgttgct | tttggttctca | ttggtttcaa | agaacacctt | tatttctgcc | ttcatttcgt | 3240 |
| tatgtaccca | gcagtcattc | aggagcaggt | tgttcagttt | ccatgtagtt | gagtggtttt | 3300 |
| gagtgagttt | cttaatcctg | agttctagtt | tgattgcact | gtggctctgag | agacagtttg | 3360 |
| ttataatttc | tgttctttga | catttgctga | ggagtgcctt | acttccaact | atgtcaattt | 3420 |
| tggaataggt | gtgggtgtgg | gctgaaaaga | atgtatatcc | tgttgatttg | gggtggagag | 3480 |
| ttctgtagat | gtctattagt | tccgcttggt | ttagagctga | gttcaattcc | tgggtatcct | 3540 |
| tgttaacttt | ctgtcttggt | gatctgtcta | atgttgacag | tgggggtgta | aagtctctga | 3600 |
| ttattattgt | gtaggagtct | aagtctcttt | gtagttcact | aaggacttgc | tttatgaatc | 3660 |
| tgggtgctcc | tgtattgggt | gcataatata | ttaggacagt | ttgcttttct | tgttgaattg | 3720 |
| atccctttac | cattatgtaa | tggccttctt | tgtctctttt | gatctttggt | ggtttaaagt | 3780 |
| ctgttttatc | agagactagg | attgcaatcc | ctgccttttt | ctgttttcca | tttgcttggt | 3840 |
| agatcttcct | ccatcccttt | attttgagcc | tatgtgtgtg | tctgcacgtg | agatgggttt | 3900 |
| cctgaataca | gcacactgat | gggtcttgac | tctttatcca | atttgccagt | ctgtgtcttt | 3960 |
| taattggagc | atttagccta | tttacattca | aagttagtat | tgttatatgt | gaatttgatc | 4020 |
| ctgtcattat | tatgtcagtt | ggttattttg | ctcattagtt | gatgcagttt | cttcctagcc | 4080 |
| tcgatggctc | ttacaatttg | gcattgtttt | gcagtggctg | gtactgggtg | ttcctttcca | 4140 |
| tgttttagtgc | ttcttctctc | aggagctctt | ttaggacagg | cctgggtggg | acaaaatctc | 4200 |
| tcagcatttg | cttgtctgta | aagtatttta | tttctccttc | acttatgaag | cttagtttgg | 4260 |
| ctggatatga | aattctgggt | tgaataattct | tttctttaag | aatgttgaat | attgcccccc | 4320 |
| actctcttct | ggcttgtaga | gtttctgcca | agagatcagc | tgttagtctg | atgtgcttcc | 4380 |
| ctttgtgggt | aaccgcacct | ttctctctgg | ctgcccttaa | catttttttc | ttcatttcaa | 4440 |
| ctttgggtgaa | tctggcaatt | atgtgtcttg | gagttgctct | tctcgaggat | tatctctgtg | 4500 |
| gtgttctctg | tatttctctga | atttgaatgt | tggcctgcct | tgctagattg | gggaagttct | 4560 |
| cctggataat | atcctgcaga | gtgttttcca | acttggttcc | attctccccg | tcactttcag | 4620 |
| gtacacaaa | cagacgtagg | tttgggtctt | tcacatagtc | ccatatttct | tggaggcttt | 4680 |
| gtttcttttt | attctttttt | ctct | | | | 4704 |

<210> 12359

<211> 3517

<212> DNA

<213> Homo sapiens

<400> 12359

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| gaataacaagc | cttgggtcca | tgtttactct | cttctatttg | gagaataaga | tggatgctta | 60 |
| ttgaagccca | gacattcttg | cagcttggtg | tgcattttta | gccctgcagg | cttctgccat | 120 |
| atccatgaga | agattctaca | ctagcgtcct | gttgggaatt | atgccctgga | attctgcctg | 180 |
| aattgacctc | cgcattctct | cctccttgga | cattcttttg | tcttcatttg | gtgcttttgg | 240 |
| ttttgcacct | ctccgtgatt | gtagccctac | cagcatgtta | tagggcaaga | cctttgtgct | 300 |
| tttgatcatt | ctggcccatg | aaagcaactt | tggctctcct | tcccctcctg | tcttccccgt | 360 |

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|------|
| atcccttggga | gtctcacaag | gtttactttg | gtatggttct | cagcacaac | ctttcaagta | 420 |
| tgttgtttct | ttggaaaatg | gacatactgt | attgtgttct | cctgcatata | tcattcctgg | 480 |
| agagagaagg | ggagaagaat | acttttcttc | aacaaatttt | gggggcagga | gatcccttca | 540 |
| agaggctgca | ccttaatttt | tcttgtctgt | gtgcaggtct | tcatataaac | tttaccagga | 600 |
| agaaggggtg | gagtttgttg | tttttctgtg | tatgggcctg | gtcagtgtaa | agttttatcc | 660 |
| ttgatagtct | agttactatg | accctcccca | cttttttaaa | accagaaaaa | ggtttggaat | 720 |
| gttggaatga | ccaagagaca | agttaactcg | tgcaagagcc | agttaccac | ccacaggtcc | 780 |
| ccctacttcc | tgccaagcat | tccattgact | gcctgtatgg | aacacatttg | tcccagatct | 840 |
| gagcattcta | ggcctgtttc | actcactcac | ccagcatatg | aaactagtct | taactgttga | 900 |
| gcctttcctt | tcatatccac | agaagacact | gtctcaaagt | ttgtaccctt | gccatttagg | 960 |
| actgaacttt | ccttagccca | agggaccag | tgacagttgt | cttccgtttg | tcagatgatc | 1020 |
| agtctactt | gattatcttg | ctgcttaaa | gcctgctcac | caatctttct | ttcacaccgt | 1080 |
| gtgggtccgtg | ttactgggat | accagtatg | ttctcactga | agacatggaa | tttatatggt | 1140 |
| caagtgcagg | aattggaaag | ttggacttgt | tttctatgat | ccaaaacagc | cctataagaa | 1200 |
| ggttggaata | ggaggaacta | tatagcagcc | tttgctatgt | tctgctacca | tttcttttcc | 1260 |
| tctgaagcgg | ccatgacatt | ccctttggca | actaacgtag | aaactcaaca | gaacattttc | 1320 |
| ctttcctaga | gtcacctttt | agatgataat | ggacaactat | agacttgctc | attgttcaga | 1380 |
| ctgattgccc | ctcacctgaa | tccactctct | gtattcatgc | tcttggaat | ttctttgact | 1440 |
| ttcttttaag | ggcagaagca | ttttagttaa | ttgtagataa | agaatagttt | tcttctctct | 1500 |
| ctccttgggc | cagtttaata | ttggtccatg | gctacactgc | aacttccgtc | cagtgcgtgtg | 1560 |
| atgcccatga | cacctgcaaa | ataagttctg | cctgggcatt | ttgtagatat | taacaggtga | 1620 |
| attcccgcag | cttttgggtt | gaatgacagt | tctcatctct | tctatggctg | caagtatgca | 1680 |
| tcagtgcctc | ccacttacct | gatttgtctg | tcggtggccc | catatggaaa | ccctgcgtgt | 1740 |
| ctgttggcat | aatagtttac | aatgggtttt | ttcattccta | tccaaattta | ttgaaccaac | 1800 |
| aaaaataatt | acttctgccc | tgagataagc | agattaagtt | tgttcattct | ctgctttatt | 1860 |
| ctctccatgt | ggcaacattc | tgtcagcctc | tttcatagtg | tgcaaacatt | ttatcattct | 1920 |
| aatgggtgac | tctctgccct | tggacccatt | tattattcac | agatggggag | aacctatctg | 1980 |
| catggacctc | tgtggaccac | agcgtacctg | cccctttctg | ccctcctgct | ccagccccac | 2040 |
| ttctgaaagt | atcagctact | gatccagcca | ctggatattt | tatatcctcc | cttttcttta | 2100 |
| agcagctgtg | cagaccaaat | tgcttgtttc | tttttcttgg | actacttta | tttggatcct | 2160 |
| ttgggttttg | agaaagggaa | tgtgaaagct | gtcattacag | acaacaggtt | tcagtgatga | 2220 |
| ggaggacaac | actgcctttc | aaacttttta | ccgatctctt | agattttta | aactcttgaa | 2280 |
| ttgtgtggta | tctaataaaa | gggaaggtaa | gatggataat | cactttctca | tttgggttct | 2340 |
| gaattggaga | ctcagttttt | atgagacaca | tcttttatgc | cacgtataga | tcctccccctg | 2400 |
| ctatttttgg | tttattttta | ttgttataaa | tgctttcttt | ctttgactcc | tcttctgcct | 2460 |
| gcctttgggg | ataggttttt | ttgtttgttt | atttgcttcc | tctgttttgt | tttaagcatc | 2520 |
| attttcttat | gtgaggtggg | gaagggaaa | gtatgagggg | aagagagtct | gagaattaaa | 2580 |
| atatttttagt | ataagcaatt | ggctgtgatg | ctcaaatacca | ttgcatcctc | ttattgaatt | 2640 |
| tgccaatttg | taattttttg | ataataaaga | accaaaaggtg | taatgttttg | ttgagaggtg | 2700 |
| gtttagggat | tttggcccta | accaatacat | tgaatgtatg | atgactattt | gggaggacac | 2760 |
| atttatgtac | ccagaggccc | ccactaataa | gtggtactat | ggttacttcc | ttgtgtacat | 2820 |
| ttctcttaaa | agtgatatta | tatctgtttg | tatgagaaac | ccagtaacca | ataaaatgac | 2880 |
| cgcataattcc | tgactaaacg | tagtaaggaa | aatgcacact | ttgtttttac | ttttccgttt | 2940 |
| cattctaaag | gtagttaaga | tgaaatttat | atgaaagcat | ttttatcaca | aaataaaaaa | 3000 |
| ggtttgccaa | gctcagtggt | gttgatattt | ttattttcca | atactgcac | catggcctgg | 3060 |
| cagtgttacc | tcatgatgtc | ataatttgct | gagagagcaa | attttctttt | ctttctgaat | 3120 |
| cccacaaagc | ctagcaccaa | acttcttttt | ttcttctttt | aattagatca | taaataaatg | 3180 |
| atcctgggga | aaaagcatct | gtcaaataag | aaacatcaca | aaactgagca | ctcttctgtg | 3240 |
| cactagccat | agctgggtgac | aaacagatgg | ttgctcaggg | acaaggtgcc | ttccaatgga | 3300 |
| aatgcgaagt | agttgctata | gcaagaattg | ggaactggga | tataagtcac | aatattaatt | 3360 |
| atgctgttat | gtaaatgatt | ggtttgtaac | attccttaag | tgaaatttgt | gtagaactta | 3420 |
| atatacagga | ttataaaaata | atattttgtg | tataaatttg | ttataagttc | acattcatac | 3480 |
| atatttttat | aaagtcagtg | agatatttga | acatgaa | | | 3517 |

<210> 12360

<211> 3539

<212> DNA

<213> Homo sapiens

<400> 12360

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gaataacaagc | cttggggtcca | tgttttactct | cttctattttg | gagaataaga | tggatgctta | 60 |
| ttgaagccca | gacattcttg | cagcttggag | tgcatttttaa | gccctgcagg | cttctgccat | 120 |
| atccatgaga | agattctaca | ctagcgtcct | gttgggaatt | atgccctgga | attctgcctg | 180 |
| aattgacctt | cgcattctcct | cctccttggg | cattctttttg | tcttcattttg | gtgctttttg | 240 |
| ttttgcacct | ctccgtgatt | gtagccctac | cagcatgtta | tagggcaaga | cctttgtgct | 300 |
| tttgatcatt | ctggcccatg | aaagcaactt | tgggtctcctt | tccccctctg | tcttcccggt | 360 |
| atcccttggg | gtctcacaag | gtttactttt | gtatgggtct | cagcacaac | ctttcaagta | 420 |
| tgttggtttct | ttggaaaatg | gacatactgt | atttgtgttct | cctgcatata | tcattcctgg | 480 |
| agagagaagg | ggagaagaat | actttttcttc | aacaaatttt | gggggcagga | gatcccttca | 540 |
| agaggctgca | ccttaatttt | tcttgtctgt | gtgcaggctct | tcatataaac | tttaccagga | 600 |
| agaaggggtgt | gagtttgttg | tttttctgtg | tatgggcctg | gtcagtgtta | agttttatcc | 660 |
| ttgatagtct | agttactatg | accctcccca | cttttttaaa | accagaaaaa | ggtttggaat | 720 |
| gttggaaatg | ccaagagaca | agttaaactcg | tgcaagagcc | agttaccac | ccacaggctc | 780 |
| ccctacttcc | tgccaagcat | tccattgact | gcctgtatgg | aacacatttg | tcccagatct | 840 |
| gagcattcta | ggcctgtttc | actcactcac | ccagcatatg | aaactagtct | taactgttga | 900 |
| gccttttctt | tcatatccac | agaagacact | gtctcaaagt | ttgtaccctt | gccatttagg | 960 |
| actgaacttt | ccttagccca | agggaccag | tgacagtgtg | cttccgtttg | tcagatgatc | 1020 |
| agtctctact | gattatcttg | ctgcttaaa | gcctgtcac | caatctttct | ttcacaccgt | 1080 |
| gtgggtccgtg | ttactgggat | acccagtatg | ttctcactga | agacatggac | tttatatgtt | 1140 |
| caatgggtgca | tgggaattagg | aacatgttgc | gacttgtttt | gtctactgca | tcctaaagat | 1200 |
| cagcccataa | tagagagagg | tgtaggaaaa | cggaggaact | atatagcagc | ctttgtctatt | 1260 |
| ttctgtctacc | atttcttttc | ctctgaagcg | gactgacat | tccctttggc | aactaacgta | 1320 |
| gaaactcaac | agaacatttt | ccttttcttag | agtcaccttt | tagatgataa | tggacaacta | 1380 |
| tagacttgct | cattgttcag | actgattgcc | cctcacctga | atccactctc | tgtattcatg | 1440 |
| ctcttggaac | tttctttgac | tttcttttaa | gggcagaagc | attttagtta | attgtagata | 1500 |
| aagaatagtt | ttcttctctt | tctccttggg | ccagttaata | attgggtccat | ggctacactg | 1560 |
| caacttccgt | ccagtgtgtg | gatgcccctg | acacctgcaa | aataagttct | gcctgggcat | 1620 |
| ttttagata | ttaacagggtg | aattcccagc | tcttttgggt | tgaatgacag | ttctcattcc | 1680 |
| ttctatggct | gcaagtatgc | atcagtgtct | cccacttacc | tgatttgtct | gtcgggtggc | 1740 |
| ccatatggaa | atccctgcgt | gtctgttggc | ataatagttt | acaaatgggt | ttttcagttc | 1800 |
| tatccaaatt | tattgaacca | acaaaaataa | ttacttctgt | cctgagataa | gcagattaa | 1860 |
| tttgttcatt | ctctgtctta | ttctctccat | gtggcaacat | tctgtcagcc | tctttcatag | 1920 |
| tgtgcaaaac | ttttatcatt | ctaaatgggt | actctctgcc | cttggaccca | tttattattc | 1980 |
| acagatgggg | agaacctatc | tgcattggacc | tctgtggacc | acagcgtacc | tgcccccttc | 2040 |
| tgccctctctg | ctccagcccc | acttctgaaa | gtatcagcta | ctgatccagc | cactggatat | 2100 |
| tttatatcct | cccttttctt | taagcacaa | gtcagaccaa | attgcttggt | tctttttctt | 2160 |
| ggactacttt | aattttggatc | ctttgggttt | ggagaaagg | aatgtgaaag | ctgtcattac | 2220 |
| agacaacagg | tttcagtgtat | gaggaggaca | acactgcctt | tcaaactttt | tactgatctc | 2280 |
| ttagatttta | agaactcttg | aatttgtgtg | tatctaataa | aagggaagg | aagatggata | 2340 |
| atcactttct | catttgggtt | ctgaattgga | gactcagttt | ttatgagaca | catcttttat | 2400 |
| gccatgtata | gatcctcccc | tgtctttttt | ggttttattt | tattgttata | aatgctttct | 2460 |
| ttctttgact | cctcttctgc | ctgccttttg | ggatagggtt | ttttgtttgt | ttatttgctt | 2520 |
| cctctgtttt | gttttaagca | tcattttctt | atgtgagggt | gggaaggga | aggtatgagg | 2580 |
| gaaagagagt | ctgagaatta | aaatatatta | gtataagcaa | ttggctgtga | tgctcaaata | 2640 |
| cattgcatcc | tcttattgaa | tttgccaatt | tgtaattttt | gcataataaa | gaaccaaagg | 2700 |
| tgtaatgttt | tgttgagagg | tggtttaggg | atttttggcc | taaccaatac | attgaatgta | 2760 |
| tgatgactat | ttgggaggac | acatttatgt | accagaggc | ccccactaat | aagtgggtact | 2820 |
| atgggttactt | ccttgtgtac | atttctctta | aaagtgtat | tatatctggt | tgtatgagaa | 2880 |
| accagtaaac | caataaaaatg | accgcatatt | cctgactaaa | cgtagtaagg | aaaatgcaca | 2940 |
| ctttgtgttt | acttttccgt | ttcattctaa | aggtagttta | gatgaaattt | atatgaaagc | 3000 |
| atttttatca | caaaaataaaa | aaggtttgcc | aagctcagtg | gtgttgtatt | ttttattttc | 3060 |
| caatactgca | tccatggcct | ggcagtgtta | cctcatgatg | tcataatttg | ctgagagagc | 3120 |
| aaattttctt | ttctttctga | atcccacaaa | gcctagcacc | aaacttcttt | ttttcttctt | 3180 |
| ttaattagat | cataaataaaa | tgatcctggg | gaaaaagcat | ctgtcaaata | ggaaacatca | 3240 |
| caaaactgag | cactcttctg | tgcactagcc | atagctgggt | acaaacagat | ggttgtctag | 3300 |
| ggacaagggtg | cctttccaatg | gaaatgcgaa | gtagtgtcta | tagcaagaat | tgggaactgg | 3360 |
| gatataagtc | ataatattaa | ttatgtctgt | attgtaaatga | ttggtttgta | acattcctta | 3420 |
| agtgaatttt | gtgtagaact | taatatacag | gattataaaa | taatatatttg | tgtataaatt | 3480 |
| tgttataagt | tcacattcat | acattttatt | ataaagtcag | tgagatatatt | gaacatgaa | 3539 |

<210> 12361
<211> 596
<212> DNA
<213> Homo sapiens

<400> 12361
gaaatggccc gtttgcccag tgtggctttc cccactgcca tgatgcccc gcagacgggc 60
aggtagctca gaccattctc ccagcctatc atcctttccc agcctctgtg ggcaagtacc 120
ccacaccccc ttcacagcac agttatgctt cctcaaagtc tgctgagcga acacccagtc 180
acagtgggtca cctccagggg gagcatccct acctgacacc atccccagag tctcctgacc 240
agtgggtcaag ttcattcacc cactctgctt ctgactgggtc agatgtgacc accagcccta 300
cccctggggg agctggagga ggtagcggg gacctgggac acacatgtct gagccaccac 360
acaacaacat gcaggtttat gcgtgagaga gtccacctcc agtgtagaga cataactgac 420
ttttgtaaat gctgctgagg aacaaatgaa ggtcatccgg gagagaaatg aagaaatctc 480
tgtagccagc ttctagaggt aggaagaga agatgttctt attcagataa tgcaagagaa 540
gcaattcgtc agtttccactg ggtatctgca aggtttattg attattctaa tctaata 596

<210> 12362
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 12362
ggattaatta caaaagtgtg tgtgcaatgt cagggaccga cacacagttg tgcagaaacc 60
cgtgttagca tcagcagagc tatttccact tgtgggccc aaaggccagg agaagtcact 120
aggacctgga agcagagtc ttagagcag gtccccaacc ccccgggcca cagactggat 180
accttagcct gtggggaacc gtttaggaacc gggctgcaca gcaggagggtg agcagcaggc 240
aagcaagcat tactgcctga gctccacctc ctgtcagatc agcagtggcg ttagattctc 300
ataggagcat gaacctatt gtgaactgca tatgtgaagg atctagggtg cgcactcctt 360
atgataatct aatgtctgat gatctgagat ggaagagttt catccccaaa ccattccctg 420
gccccagtc atggaaatat tgtcttccac gaaactgggt cctgggtgcca aaaagggttg 480
agactgctgc ttagagcag gctacctcaa gaagagctgt gacttccttc aaagcacaca 540
gtgggcctta agccctccca gaaagaagct agggaaatgaa tgaataccct gatctcattt 600
gcttactggt gctctctgtt tgccgactcc aagtggagc ctgcaaatat gggagctggt 660
gattataatc tatcaatgta agtcagcttt ctggctggga gcttgggtga gaaggaaaga 720
gagtgaatct gaaggggcaa acatattacc taaaataaca ttctccttc aactatattt 780
ctgagaaatt tccactggta acctgttatt gatgtgtcta ggcagaaagc ataaagttaa 840
aaaaaagtac gtatttagaa tcctgacttc ttttctgat ctagtagtgt gtttcttcac 900
cactttggtc ttgagcactc aaagtgcaga cagtcatcag cagtgggatg gataaattct 960
ggtacattca ttgaaatgaa tgctacgcat aaatgaaaa gagcaacttg caacaacacg 1020
tagtatattc atcaaaataa tgttgagcaa aataagccag acacaagtaa tacattctgt 1080
atgattccat tacataagtt taggaaaaac caaccaatag taaatagata atctgaacag 1140
tggtacttt ttgggagaaa ggtctagact gaagtgagag aaagaagaat ctttctggag 1200
tctgaaagta tcttgacctg ggtggtgact acatgagtgt atatatacgt aaaatttcat 1260
gtaaaattta acttaagatt tatgcatttg acttatgtaa attatacttc aataaaatgt 1320
ttctacaata acctacagaa a 1341

<210> 12363
<211> 597
<212> DNA
<213> Homo sapiens

<400> 12363
gaaatggccc gtttgcccag tgtggctttc cccactgcca tgatgcccc gcaggacggg 60
caggtagctc agaccattct ccagcctatc catcctttcc cagcctctgt gggcaagtac 120
cccacacccc cttcacagca cagttagctt tcctcaaag ctgctgagcg aacacccagt 180
cacagtgggt acctccaggg tgagcatccc tacctgacac catccccaga gtctcctgac 240
cagtgggtcaa gttcatcacc ccactctgct tctgactggg cagatgtgac caccagccct 300
accctggggg gtgctggagg aggtcagcgg ggacctggga cacacatgtc tgagccacca 360

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| cacaacaaca | tgcaggttta | tgcgtgagag | agtccacctc | cagtgtagag | acataactga | 420 |
| cttttgtaaa | tgctgctgag | gaacaaatga | agggtcatccg | ggagagaaat | gaagaaatct | 480 |
| ctggagccag | cttctagagg | taggaaagag | aagatgttct | tattcagata | atgcaagaga | 540 |
| agcaattcgt | cagtttctact | gggtatctgc | aaggcttatt | gattattcta | atctaata | 597 |

<210> 12364
 <211> 977
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-----|
| <400> 12364 | | | | | | |
| cagcaaacag | ggaccacggc | taatgatgtg | cttttttaggg | gcaggatgca | tagagggttaa | 60 |
| gacttggact | atggcctgga | ttgcctgggt | tcaaatectg | cctctactct | atcacttcag | 120 |
| gcaggcaggt | ccttaggctc | tttgggcctt | ctcatttctc | cttctgaaaa | ggaaattcac | 180 |
| ctcgtgctgt | agtaagtccg | tgaattgata | tctgtaaggc | acttagtaag | caactgtatac | 240 |
| tgtttgacta | tttgtcttag | tctgctcagg | ctgccataac | aagataccat | agactggcca | 300 |
| ggggagggtg | ctcacacctg | taatcctggt | actttgggag | gccaaggcag | gtggaccact | 360 |
| ggaggtcatg | agttcaagag | cagcctggcc | aacataccaa | aattccgtct | ctagtaaaaa | 420 |
| tacaaaaatt | agctgggcgt | ggtggtgtgc | gcctgttaat | tccagctact | cggcagttctg | 480 |
| aggcaggaga | attgcttgaa | ccagggaagc | ggaggttgca | gtaagcagag | atggcaccac | 540 |
| tgtactccag | cctgggtgac | agaggcaagac | tctgtctcaa | aaaaaaaaaga | taccatagac | 600 |
| tgggtggctt | gaacaacaga | aatgtatttt | ctcacagttc | tggagactag | aagtcccaga | 660 |
| taaaagtcca | gcatgggtgct | gggtgcagtg | gctcacacct | ggaatcccag | caactttggga | 720 |
| ggccaaggcg | ggcagattat | gaggtcagga | gttcaagacc | agcctggcca | acatgatgac | 780 |
| accccgctctg | tactaaaaat | acaaaaattg | cctggggcatg | gtggcacatg | cctgtaatcc | 840 |
| cagctactca | ggaggctgag | gcaggagaat | cacttgaacc | caggaggcag | aggatgcagt | 900 |
| gagccaagat | cgcgccattg | ccctctagcc | tgggcgacag | agcgagactc | cgtctcaaaa | 960 |
| aaaaaaaaaa | aaaaaaaa | | | | | 977 |

<210> 12365
 <211> 137
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12365 | | | | | | |
| actttgggag | gccgaggcgg | gcagatcatg | aggtcaggag | atcgagacca | tcctggccaa | 60 |
| catggtgaaa | ccccgtctct | actaaaaata | caaaaattag | ctgggtgtgg | tggcgcacgc | 120 |
| ctatagtccc | agctact | | | | | 137 |

<210> 12366
 <211> 5659
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (4939)
 <223> n equals a,t,g, or c

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12366 | | | | | | |
| gttgaccgcg | aaggacgagg | cgtccccgtg | acgtcctgct | cttccaatga | acttcaggcc | 60 |
| tgcgagacg | acggagaacg | gaagttctct | gcctgtgtgc | tggttggttg | cgcggtgagg | 120 |
| ccagccccgc | ctcccatctt | ccggtctctc | cagaagtgcg | ttagctcttc | ggtggttgc | 180 |
| ccacgtccgg | aggcctagcc | gtcgcttacc | taggatgccg | cgtggaagcc | gaagccgcac | 240 |
| ctcccgcatg | gcccctccgg | ccagggtgaga | ccatcgcagg | gtttgagacc | aaagcgcggc | 300 |
| cgtccggact | ctactggggc | aatgacgcag | agggaggccg | cgggcggggg | tgaactaagg | 360 |
| tcggctgcgg | cgtgggctcg | cctctgccag | gcgggggtag | attgaacgta | aagcctatgt | 420 |
| taggggagtg | tggggaggga | attcacttac | ggaaaaagct | tcctatccaa | acaacgggaa | 480 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| aggcataacg | ttatggccag | gtggtaggaa | ggcataaatt | ttgacctagc | ttgatttcgg | 540 |
| ggaaaagagc | acccaaggaa | ataatccgga | aatgggtcaga | gggagcgtga | tacatatgaa | 600 |
| gattttttaa | tacgtgcagg | acataattag | tcttttgtaa | tttgagaagg | ggtctcgaaa | 660 |
| ttgttgaaag | catctgaacg | ttgaacagat | gaggaatagt | tgaagttgct | tttggtataa | 720 |
| tagttcagac | gagtcacttt | ggccagtctt | gttttgtaat | gtgtaaaatg | aaggaattgg | 780 |
| actagattat | ttcccagtt | gaccatcttt | aagtccta | tagaatgttt | atttatttat | 840 |
| attttgagtc | agagtcta | tcaggctgta | gtgcagtgac | gtaattatgg | ctaactgcag | 900 |
| ccttgacttc | ctgggctcaa | gctattctac | cacgtcagcc | tccagagtaa | ctgggactac | 960 |
| aggcatgccc | cacctgtgca | ccacacttgg | cgactttatt | ctattttata | tttttagcaga | 1020 |
| gacagggctc | cattatgtgg | ccctggctgg | tctcaaagtc | ctggcctcaa | atgatccttt | 1080 |
| cgccctccat | tccctaatac | ctgggattac | aggcaagagc | caccactccg | cagcctatgt | 1140 |
| taattatttg | atccgtcaat | aaaatgtaaa | ctccatgaat | gcagagattt | ttgtctcttg | 1200 |
| ttcacagtta | cattaccagc | gccttgtagt | tacctaatac | ttgaatgaat | gaatcctgta | 1260 |
| agaatctttc | taacttttag | tagtctgtat | ttcttatgac | atgttggata | tgtcttttaa | 1320 |
| gatactgtgg | gctatccgaa | tacatggaaa | ttgttgcaaa | gaagcagaaa | aaactagtat | 1380 |
| gtcctaggct | attactatta | taagaaaaga | ttaaagtggc | cgggctgggt | ggctcatgcc | 1440 |
| tgtaatccca | acactttggg | aggtcgaggc | gggtggatca | cttgagggtca | ggagttcgag | 1500 |
| acgagcctgg | ccaacatggt | gaaactccgt | ctctactaga | aatacaaaaa | ttagctaggt | 1560 |
| gtgggtgggc | gcgcctgtaa | tcccagctac | ttgggaagcg | gaggcagaa | aatcggttga | 1620 |
| accaggagg | cagaggttgc | agtgaattg | gatcgtgaca | ctgcactcca | gtctgggcat | 1680 |
| cagagtggag | ccctgtctca | aaaaaaaaaa | aaaaattagg | ccgtgcgtgg | tggttcacac | 1740 |
| ctgtaatccc | agcactttgg | gagtcagg | cgggtggatc | acctgaggtc | aggagctgga | 1800 |
| gaccagccat | ggtcaccata | gtgaaacctc | gtctcaacta | aaaatacaaa | aaattagccg | 1860 |
| gaggtggctg | cgggtgcctg | taatcccagc | tactcggaag | gctgaggcaa | gagaatcgct | 1920 |
| tgagtctggg | aggtggaggt | tgagtgagc | tgagattgca | ccattgcact | ccagcctggg | 1980 |
| caacaagagc | gaagctccat | ctcaaaaaaa | aaaaaattga | agagagaaaa | tgatgtaaat | 2040 |
| aatttgaaat | gaaaatcttg | aggtccattt | taatatgtaa | gttattttta | gttgacaatt | 2100 |
| tccaaaactg | gttggaaattg | ggaacttgat | gtttttttct | tttctttcac | agccggggccc | 2160 |
| ctcagatgag | agctgcaccc | aggccagcac | cagtcgctca | gccaccagca | gcggcacccc | 2220 |
| catctgcagt | tggctcttct | gctgtgcgc | ccggcgagcc | aggtctgatg | gccagatgg | 2280 |
| caaccactgc | agctggcggtg | gctgtgggct | ctgctgtggg | gcacacattg | ggtcacgcca | 2340 |
| ttactggggg | cttcagtggg | ggaagtaattg | ctgagcctgc | gaggcctgac | atcacttacc | 2400 |
| aggtgggaat | ttaggcagca | tttcccttcc | atgggtggat | tttatgagaa | aagccagacg | 2460 |
| tttgtaagtt | ccttaagtgt | aggaattgtc | tttgatttta | gaaccactg | tgctgttaat | 2520 |
| agacaatggg | ttttaagacc | acatttggtc | gttgagttac | tgcttaggc | cagcaccaac | 2580 |
| aagtactgta | caaatttgtg | ttcttcccaa | ggaggagact | tacaacagtc | cacttgactc | 2640 |
| actgtaaaa | aaccactttt | ccctttgaat | atttcatccc | agtgcactt | cctactaatc | 2700 |
| ttgtcttgat | cttagttaac | aaatcaaaaa | tctcgcatag | ctgtgtgttc | ttttacgtga | 2760 |
| tgtttgccat | tacctatctt | tctgatgtgt | tggggctttc | tagtctaattg | agcataggtg | 2820 |
| tgtatactct | tgtattttccg | gtgtgcttga | aactgctcca | tccagttttc | tataatagta | 2880 |
| ccatttttcc | tccctgaagc | ttcagtaaac | catttagtct | tgataacaag | ataataattc | 2940 |
| cactttatct | gcacttttat | ttagggaatc | ttctggttgt | aattggaatt | ttgttaaaac | 3000 |
| tgttggcttt | cagcttttaa | atattttcac | ttttggctgg | gaacggaggc | tcatgcctat | 3060 |
| aatcccagca | cattggggagg | ctgaagtga | gggattgctt | gaaccagaa | gtttgagacc | 3120 |
| aggctgggca | acatagcgca | accctgtctt | tactaaaaat | atatttttaa | attcttcttt | 3180 |
| tttgagggtg | gagtcctcgt | ctgttatcca | ggctccaccg | cccgggttca | agcgattctc | 3240 |
| ctgcctcagc | ctcccagta | gctgggatta | caggtgcctg | ctaccagcc | tggctaattt | 3300 |
| ttgtattttt | agtagggacg | gggttttacc | atattggcca | ggctggtctc | aaacgcctga | 3360 |
| cctcaagtga | ttcacccttc | tgggttccc | aaagtgttgg | aattacaggc | gtgagccacc | 3420 |
| atgtttggcc | taaaataattt | tttaagtaaa | tgaagattta | aatgttttca | cttcccatgt | 3480 |
| taatagttgg | aaactttaat | tagcatctgg | tgtagttcc | attttccatt | aacctcaaag | 3540 |
| aggatggata | ctcttcattg | tctaggcata | agtatgattt | tctttctcag | caatgttgaa | 3600 |
| tgttttgcct | ttgcaggagc | ctcagggaa | ccagccagca | cagcagcagc | agccttgctt | 3660 |
| ctatgagatc | aaacagtttc | tggagtgtgc | ccagaaccag | ggtgacatca | agctctgtga | 3720 |
| gggtttcaat | gaggtgctga | aacagtgccg | acttgcaaac | ggtaggtaat | ttgtccaatt | 3780 |
| tacatctgct | taattcacag | tggaaattcc | ggatcctgta | gaacttaggg | taactctgtg | 3840 |
| ttaataaatt | agagaagact | ttgttgaaat | ttctctgtaa | ttactccta | acaactgggc | 3900 |
| cggagggttc | tagtcatttt | tatgagtaat | tttctgaatt | ttcttctttt | agaaggtata | 3960 |
| ggccaggcac | agtggctcac | gcttgtaatc | ccagcacttt | gggaggccaa | gacgggtgga | 4020 |
| tcacctgatg | tcaggagttt | gaggccagcc | tggccaacat | ggcaaaaccc | catctgtact | 4080 |
| aaaaatacaa | aaaattagct | gggtgtgggtg | gcaggcacct | gtaatccag | ctactcagga | 4140 |

| | | | | | | |
|-------------|------------|-------------|-------------|------------|------------|------|
| ggctgaggca | ggagaattgc | ttgaacccgg | gaggcgagg | ttgcagtga | ccaagatcct | 4200 |
| gccactgcat | tccagcctgg | gcaactgggt | gtctccagt | ggagacactg | tctcaaattt | 4260 |
| aaaagaaaaa | aaaaaaaaag | aaggtataaa | tcagtatgcc | agatcttact | gtgattactg | 4320 |
| gatgtaagt | accttctaac | cttaaggctg | cgaatataag | attagattct | gttttcacca | 4380 |
| aatccagga | atagacaaaa | agactgatac | ctggtatctg | tacctcattg | agtgaagga | 4440 |
| gttaattaag | ttcctcaggg | gaactccgga | gattcagggg | gtcttgtag | ttgtaggatg | 4500 |
| ccttcagtag | cttacaacaa | aaaccataac | cttcctggaa | cccagcactc | tggaaggcca | 4560 |
| aggtggggagg | attgcttgag | tccaggagtt | cgagaccagc | ctgggcaaca | tagcaagacc | 4620 |
| tcactcttat | tttttatcaa | aaaaaaacaa | aaaacaaaaa | acccatagcc | ttggcctttt | 4680 |
| gtcgctgctt | tcataatttg | gaaggcttct | gttttatatga | gtatacgaag | ctagcattct | 4740 |
| tctaacttaa | tcttttctgt | ttgcaggatt | ggcctaata | agaagttcaa | cctggagaga | 4800 |
| tggaaaatca | gctctcataa | ctaagttaat | ttagtataaa | aatagaattg | atagtggagg | 4860 |
| tataaagtgt | aaccatcagt | taaacctctc | ctgtcattcc | tggcttcctt | gcttcagaat | 4920 |
| tgaaatggaa | gtgggggtng | tccctactct | gtagaatctg | ggactgggca | aatgtttgtg | 4980 |
| tggcctcctt | aaactagctg | ttatgttatg | attttattct | ttgtgagtta | attagaataa | 5040 |
| agtcattttc | gtccaaggta | tgggttcattt | agtctatagt | ctctgggtat | gaaattagca | 5100 |
| tcctcccaga | tctgacagct | ccctgagggg | ttatataagg | agtagctcac | ttgcaaacat | 5160 |
| aacatgctgc | tcaattcaaa | ggttctagct | gctgtgggtc | tggagttagt | taagctgagc | 5220 |
| agtagcagga | aactctgctt | aaaatatgtt | ttaaagctgt | gcgtgctggc | atgtgcctgt | 5280 |
| aatcccagct | acttgggaga | ctgagggcgg | agaatcactt | gaaccagga | ggtggagggt | 5340 |
| gcagtgaact | gagaccatgc | cactgcactc | actgacagag | caagactctg | tctcaaaaaa | 5400 |
| aaaaaaaaaa | tacattgttt | taatcagggt | aatgataaag | gaaacaggaa | taggtctatt | 5460 |
| tgggggtgggt | tcctctgtgg | taggtcagca | ctgcgtatca | ctattcctct | actgtttcca | 5520 |
| agcaagcttg | tgcaaccac | cttttgttct | gttttctttt | gctttaggct | tttagcagcc | 5580 |
| tggagttata | gtttgtctct | agtgataagt | ggaaaagagc | gatgaggaag | gggttttact | 5640 |
| ggcctaacca | taaactgta | | | | | 5659 |

<210> 12367
 <211> 1644
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|------|
| <400> 12367 | |
| ctgggagtg | 60 |
| gcttgaaccc | 120 |
| gggcaacatg | 180 |
| aagaaggat | 240 |
| aaccttaagg | 300 |
| aaaagactga | 360 |
| ggggaactcc | 420 |
| acaaaaccat | 480 |
| gagtcacagga | 540 |
| caaaaaaaa | 600 |
| ttggaaggct | 660 |
| tggttgacag | 720 |
| taactaagtt | 780 |
| agttaaactc | 840 |
| tgctctactc | 900 |
| gttatgttat | 960 |
| atggttcatt | 1020 |
| tccttgaggg | 1080 |
| aggttctagc | 1140 |
| taaaatattg | 1200 |
| actgagcgg | 1260 |
| ccactgcact | 1320 |
| ttaatcaggt | 1380 |
| ctaggtcagc | 1440 |
| ccttttggtc | 1500 |
| tagtgataag | 1560 |
| actaaaccca | 1620 |

cttaatatat gcagttcccc tgaa

1644

<210> 12368
<211> 289
<212> DNA
<213> Homo sapiens

<400> 12368
atttctttca ttcagttcat actacgcgtc cacactgtgc ctccaaaaat atttgccctt 60
ataactgaat gctcagaaag gctaagaaat ctgcccgaagg tcccctggca atccagccag 120
agatgtgagt cactcttaag gttggattta atacaaatgt ttgaaggacg gagcgacagg 180
ccagctgccc taggggaagca aaatgctaag tgctctgatg cgaggaccgg aggacaaggt 240
tcgcggatga accacaggaa cttccggggtt ttaaagatcc tggcgccaa 289

<210> 12369
<211> 655
<212> DNA
<213> Homo sapiens

<400> 12369
tttttctgag tttcagagcc ctgcatcact gccaggtgag tgaaatgctg gtgattgagg 60
gaattagcca gttgctgtct cgcctcctat cagctgtgtt cctggagtgc ctaaaccattc 120
agttcctgaa agaggctccc tttcagaaag aggggtctcag cacagttcac tcctggccag 180
ttccccggca tattccctcc tgggtttata gaagacactt ttgctaattt tcctggaggc 240
tcgggacctc tgtgagtctg tagtggttaat gctcagatgt ccctcgtgtc caggtgtagt 300
ggtgattcaa ataaattgaa tcaaagaaaa atgacgaaat gtaagcgtga ctggccaggc 360
ctactccctg gtaggagtca ttgctacaag gagaaagggtg tggaataatc ctctagggtgc 420
actggccttt tgccctaaag tcagaaagga ttttgtgatg cattcattga ttgtccagtt 480
ggcgctccaa ttccctgagt ttggtgtcca tggattcagc caatcgagga ttgagaatat 540
ttgaagtctg tgcaataaag tgagatccct acaaaaaata aatcagccag gtgcagtagc 600
atgcacctgt agtcccagcc actagggagg ccgaggtggg atcacagaag cccag 655

<210> 12370
<211> 656
<212> DNA
<213> Homo sapiens

<400> 12370
tttttctgag tttcagagcc ctgcatcact gccaggtgag tgaaatgctg gtgattgagg 60
gaattagcca gttgctgtct cgcctcctat cagctgtgtt cctggagtgc ctaaaccattc 120
agttcctgaa agaggctccc tttcagaaag aggggtctcag cacagttcac tcctggccag 180
ttccccggca tattccctcc tgggtttata gaagacactt ttgctaattt tcctggaggc 240
tcgggacctc tgtgagtctg tagtggttaat gctcagatgt ccctcgtgtc caggtgtagt 300
ggtgattcaa ataaattgaa tcaaagaaaa atgacgaaat gtaagcgtga ctggccaggc 360
ctactccctg gtaggagtca ttgctacaag gagaaagggtg tggaataatc ctctagggtgc 420
actggccttt tgccctaaag tcagaaagga ttttgtgatg cattcattga ttgtccagtt 480
ggcgctccaa ttccctgagt ttggtgtcca tggattcagc caatcgagga ttgagaatat 540
ttgaagtctg tgcaataaag tgagatccct acaaaaaata actcagccag ggtgcagtag 600
catgcacctg tagtcccagc cactagggag gccgaggtgg gatcacagaa gcccag 656

<210> 12371
<211> 1208
<212> DNA
<213> Homo sapiens

<400> 12371
aggaaagtct gaaattagca agttatgaaa ttaaaaaatc atcgagattt aaaaaatatt 60

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| tttgggcttc | atcttcatat | gtgaagaaag | tacgtgtgcc | actcacctga | aggaatgtct | 120 |
| gcataagtat | tgcagtttct | ttaacccaac | aaggtgtgat | tgcattttatt | cacatggaca | 180 |
| gaataacaaa | cccaaaaact | ttatcattcg | ttgatgagaa | gtgttagtca | tttatttgaa | 240 |
| tgtcagtttt | aagctactga | taacatgatt | gatttagcaac | ggaaacattt | tagaagatac | 300 |
| cacgcatttg | tttaattcaa | atgggtcaact | gtcaggatac | atcgctctct | tattccactc | 360 |
| tcaccacaat | ctaactttta | aacatttctca | tcaccctaaa | aagcaacctt | ggcactcccc | 420 |
| atcctccctt | tccatcgccc | gtgcccagc | cagcccctgg | ttactttctg | tctctgagga | 480 |
| cttgccctgc | ctgggcgttc | cacgtaaaatg | agtcagacct | atgcagtcct | tgctggcctc | 540 |
| cttcactggc | atatactctt | ttactgggttc | attcgtattg | tagtgtatat | cagtacctca | 600 |
| tttctgttta | ttgccaaata | atattccatc | gtgtggatac | accacacttt | atttatccat | 660 |
| tcataagggtg | atggacatgg | gttgtttcta | ctttttgcct | actacgacta | atgctgctgt | 720 |
| gagtatttcag | ggttctagcc | aatgcagtta | ggcaagagca | agaagggtggc | gtccacattg | 780 |
| taaggagag | caaaactctc | tctgtatgtg | tgacatggtc | atgtccgtag | gaaatcctca | 840 |
| ggagtcaccc | agccctctat | taattaaagg | ggtttggtta | gattgtagga | cgcaagatca | 900 |
| acacacaaga | atgaaattgt | atcttctgtat | gctaacaacg | aaccatccag | agatagaatt | 960 |
| aagaaaacaa | ttgtattttac | agtgcacaa | aaaatatttc | atttgtgttaa | gacggcaaca | 1020 |
| attctagctt | cttttatcta | taggttctgt | gtaataccta | ctaaaatccc | agctaccttt | 1080 |
| gcataaattg | gcaagctgat | tctgaaattc | acatggagat | actagggatt | cagcatggct | 1140 |
| acaacaatct | tgaaaaacaa | acaaagttag | aggacttgca | actcgtgatt | tcttctttta | 1200 |
| aaaaaaaa | | | | | | 1208 |

<210> 12372
 <211> 1498
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12372 | | | | | | |
| atcagaaacc | ttttgtcaaa | agacattttc | tgtctatata | gctacatacc | atagccgagt | 60 |
| ctgctgtgaa | tctctttgac | gtgacggcac | tcttactctc | tggctgcatt | cattcctccc | 120 |
| ttttccaaag | cttccaattt | gggggcatat | taattttctgt | tgtattaaaa | tgacaaaagt | 180 |
| tgtagaaatc | atcagtgttt | gaaatcatgg | agagcatttg | aggtaagatt | tgaaaaataa | 240 |
| ttttgtatta | cagactctac | attatctact | actgcataag | agggtgaagga | aagtctgaaa | 300 |
| ttagcaagtt | atgaaattaa | aaaatcatcg | agatttaaaa | aatatttttg | ggcttcatct | 360 |
| tcatatgtga | agaaagtacg | tgtgccactc | acctgaagga | atgtctgcat | aagtattgca | 420 |
| gtttctttta | cccaacaagg | tgtgattgca | tttattcaca | tggaacagaat | aacaaaccca | 480 |
| aaaactttat | cattcgttga | tgagaagtgt | tagtcattta | tttgaatgtc | agtttttaagc | 540 |
| tactgataac | atgattgatt | agcaacggaa | acatttttaga | agataaccacg | catttggttta | 600 |
| attcaaatgg | tcaactgtca | ggatacatcg | ctctcttatt | ccactctcac | cacaatctaa | 660 |
| ctttaaaaca | ttctcatcac | cctaaaaagc | aaccttggca | ctccccatcc | tccccctcca | 720 |
| tcgcccgtgc | cccaggcagc | ccctggttac | tttctgtctc | tgaggacttg | cctgtcctgg | 780 |
| gcgttccacg | taaatgagtc | agacctatgc | agtccctgct | ggcctccttc | actggcatat | 840 |
| actcttttac | tggttcattc | gtattgtagt | gtatatcagt | acctcatttc | tgtttattgc | 900 |
| caaataatat | tccatcggtg | ggatacacca | cactttattt | atccattcat | aagggtgatgg | 960 |
| acatggggtt | tttctacttt | ttgcctacta | cgactaatgc | tgctgtgagt | attcaggggtt | 1020 |
| ctagccaatg | cagttaggca | agagcaagaa | gggtggcgctc | acattgtaaa | ggagagcaaa | 1080 |
| actctctctg | tatgtgtgac | atgggtcatgt | ccgtaggaaa | tcctcaggag | tcacccagcc | 1140 |
| ctctattaat | taaagggggtt | tggttaagatt | gtaggacgca | agatcaacac | acaagaatga | 1200 |
| aattgtattt | ctgtatgcta | acaacgaacc | atccagagat | agaattaaga | aaacaattgt | 1260 |
| atttacagtg | catcaaaaaa | tatttccattg | tgtaagacg | gcaacaattc | tagcttcttt | 1320 |
| tatctatagg | ttctgtgtaa | tacctactaa | aatcccagct | acctttgcat | aaattggcaa | 1380 |
| gctgattctg | aaattcacat | ggagatacta | gggattcagc | atgggtacaa | caatcttgaa | 1440 |
| aaacaaacaa | agttagagga | cttgcaactc | gtgattttctt | ctttaaaaaa | aaaaaaaaa | 1498 |

<210> 12373
 <211> 738
 <212> DNA
 <213> Homo sapiens

<400> 12373

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|-----|
| ttcgtgaatc | gcgaatgctg | ctgtctgata | gttcctctgg | aagttttgtc | tcagaggagt | 60 |
| accgggctgt | gtgagggtgc | agtctgcccc | tgcttggggg | gtgcctccca | gttaggctgc | 120 |
| tcgggggtca | ggggtcaggg | accacttga | ggaggcagtc | tgcccgttct | cagatctcca | 180 |
| gctgcgtgct | gggagaacca | ctgctctctt | caaagctgtc | agacagggac | atttaagtct | 240 |
| gcagaggtta | ctgctgtctt | tttgtttgtc | tgtgtcctgc | ccccagagg | ggagcctaca | 300 |
| gaggcaggca | ggcctccttg | agctgtgggtg | ggctccaccc | agttggagct | tcctggctgc | 360 |
| tttgtttacc | taagcaagcc | tgggcaatgg | cgggcgcccc | tccccagcc | ttgctgccgc | 420 |
| cttgagttt | gatctcagac | tgctgtgcta | gcaatcagcg | agactctgtg | gggtaggacc | 480 |
| ctccgagcca | gggtgcgggat | ataatctcat | ggtgcgcctt | tttttaagcc | cgtcagaaaa | 540 |
| gtgcagtatt | cgggtggggag | tgacccgatt | ttccagggtgc | tgtctgtcac | ccctttcttt | 600 |
| gactaggaaa | gggaactccc | tgacccttgc | tcttcccag | tgaggcaatg | cctcgccctg | 660 |
| cttcggctcg | cgcaacatgc | gctgcaccca | ctgtcctggg | ccactgtct | ggcactccct | 720 |
| agtgaatga | accgggta | | | | | 738 |

<210> 12374
 <211> 1155
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12374 | | | | | | |
| tccgtccagc | tttgtttctgt | tgctgggtgcg | gaactgtgtt | cctttggagg | aggagaggcg | 60 |
| ctctgctttt | taaagtttgc | agtttttctg | ctctgttttt | tccccatctt | tgtgggtttt | 120 |
| tctacttttg | gtctttgatg | atgggtgatgt | acagattagt | ttttgggtgtg | gatgtccttt | 180 |
| ctgtttgtta | gttttcttct | tgacagacag | gaccctcaac | tgcaggctctg | ttggagcttg | 240 |
| ctggagggtcc | actccaaacc | ctgtttgtct | gggtattagc | agcagtgggt | gcagaatagc | 300 |
| ggattttcgt | gaatcgcgaa | tgctgtctgtc | tgatcgttcc | tctggaagtt | ttgtctcaga | 360 |
| ggagtaccgc | gctgtgtgag | gtgtcagttc | gccccgtctt | gggggggtgcc | tcccagttag | 420 |
| gctgtctcggg | ggtcaggggt | cagggaccca | cttgaggagg | cagtctgccc | gttctcagat | 480 |
| ctccagctgc | gtgctgggag | aaccactgtc | ctcttcaaag | ctgtcagaca | gggacattta | 540 |
| agtctgcaga | ggttactgct | gtctttttgt | ttgtctgtgt | cctgccccca | gaggtggagc | 600 |
| ctacagaggc | aggcaggcct | ccttgagctg | tgggtgggtc | caccagttg | gagcttctctg | 660 |
| gctgctttgt | ttacctaaag | aagcctgggc | aatggcgggc | gccccctccc | cagccttgct | 720 |
| gccgccttgc | agtttgatct | cagactgctg | tgctagcaat | cagcgagact | ctgtggggta | 780 |
| ggaccctccg | agccagggtgc | gggatataat | ctcatgggtgc | gccctttttt | aagcccgtca | 840 |
| gaaaagtgca | gtattcgggt | gggagtgacc | cgattttcca | ggtgctgtct | gtcaccctct | 900 |
| tctttgacta | ggaaagggaa | ctccctgacc | cttgctcttc | ccgagtgagg | caatgcctcg | 960 |
| ccctgcttcg | gctcgcgcaa | catgcgctgc | acccactgtc | ctgggcccac | tgtctggcac | 1020 |
| tcctagtga | gatgaacccg | gtacctcaga | tggaaatgca | gaaatcaccc | atcttctgcc | 1080 |
| ttgtcacgc | tgggagctgt | agactggagc | tgttcctatt | cggctgtctt | ggctgcccc | 1140 |
| cttccatttc | ttgta | | | | | 1155 |

<210> 12375
 <211> 628
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|------------|-----|
| <400> 12375 | | | | | | |
| gagcctccac | agcctgcagg | tatccagacg | acgttctgca | cacagagact | cagactccca | 60 |
| ccagggcctc | acgccccact | gcctctccgg | gatgcctgcg | tgtgggtcac | tcccaccacg | 120 |
| ggcacatcag | ccctgggtgcc | cagctggcct | tctgcagagc | ctgggtgctgg | agcagcttct | 180 |
| cgaattctct | gctgcctcct | ccccacagcc | ttccagggcc | tcagagctgc | tgccaggcca | 240 |
| gcacctcctt | gggcccgtgt | tgaggcccca | cggggctggg | ctcatgtggg | agctgatctt | 300 |
| ggccgggtga | tccctcactg | ctctggacaa | aagggagcca | tgggcccggg | atggtggctc | 360 |
| acgcctgtaa | tcccagcact | ttgggaggcc | aaggtgggag | gatcacctga | ggtcggagtt | 420 |
| tgagaccagc | ctggctaatt | tgggtgaaacc | ccgtctctat | taaaaatata | aaaattagcc | 480 |
| gggtgttgtg | gtgggtgcct | gtagtcccag | ctactcggga | ggctgagaca | ggagaatggc | 540 |
| gtgaaccccg | gaggtggagg | ttgcagttag | ccaagattgt | cccatccagc | ctgggtgacg | 600 |
| gaggaagact | ctgtctccaa | aaaaaaaa | | | | 628 |

<210> 12376
 <211> 816
 <212> DNA
 <213> Homo sapiens

<400> 12376
 cagttcaact cccgtgctct ccaaagctag tcccatcatt acacgcgcca tttaggacgc 60
 tccaggccat ctcggtcacc aggggcctgg cggtcaccgt gtttcctcat gaggctcagt 120
 ggggtgctgtg tgtctgtggg tgccggtgat gaaataaatg taaggcatca gagcatttta 180
 atagatggga gcctccacag cctgcaggta tccagacgac gttctgcaca cagagactca 240
 gactcccacc agggcctcac gccccactgc ctctccggga tgcctgcgtg tggctcactc 300
 ccgccacggg cacatcagcc ctggtgccca gctggccttc tgcagagcct ggtgctggag 360
 cagcttctcg aattctctgc tgccctctcc ccacagcctt ccagggcctc agagctgctg 420
 ccaggccagc acctccttgg gcccgtgttg aggccccacg gggctgggct catgtgggag 480
 ctgatcttgg ccgggtgatc cctcactgct ctggacaaaa gggagccatg ggccgggcat 540
 ggtggctcac gcctgtaatc ccagcacttt gggaggccaa ggtgggcgga tcacctgagg 600
 tcggagtttg agaccagcct ggctaagtgt gtgaaacccc gtctctatta aaaatacaaa 660
 aattagccgg gtgttgtgtt ggggtgcctgt agtcccagct actcgggagg ctgagacagg 720
 agaatggcgt gaacccggga ggtggaggtt gcagtgaacc aagattgtcc catccagcct 780
 gggtgacgga ggaagactct gtctccaaaa aaaaaa 816

<210> 12377
 <211> 677
 <212> DNA
 <213> Homo sapiens

<400> 12377
 gctgcagtcc ctgtctcttc agaccctctg tgctcttagg agactgtcgt tgttctctcc 60
 tttttaaac atcctgtgcc ttttaacaga ataaacggca aggggtcccc actgaggtcg 120
 aataatgctg gaggagggcc gtgggtccag gcatggtggg ggctgcctcc tgggtgttga 180
 tgagcagaaa ttcaggccgg tttgacggca ggcacgtgag ggaggttgct gtgtgtcagt 240
 ggccctgtgt ccctggcact gtgtccgaac ctgacagccg ccgctgtgtc actgggcacc 300
 tgccctgcgc acctccccct gtgacgggca ctctcacagc tttcctggcg aggctgaggg 360
 aaaaacatgg caaacaactc gcacatgact ttgcgttttt ggccctgtca tataataaaa 420
 gtaattttgt ggccataaat aaatcagggc tggggatcag atgcctccaa tctggccttt 480
 aattgcaggc gtgacatggc ttgcctcggc gactctgtc ctaattaaag tgggctggcg 540
 gtgtatgaag ttgcacgga tctcagggt gctgaccag ccccggttcc ggagggccag 600
 tgtgacgaca cctcgtggcc caggagagca gggcgggcca cccatggcca ccgtgccagg 660
 aatggggctc tctggct 677

<210> 12378
 <211> 425
 <212> DNA
 <213> Homo sapiens

<400> 12378
 gcccgttcc aggtgtggc atgccaggcg agtcaccggc atcctgtccc tgcccaccgc 60
 ttttaagaaac tgtagttct gtgtgaaatg tcatcactgg gcgtgaattc ccattctcag 120
 ataattccgc caggcgggtg ttggatgagg agtttattca ggctgtgggg gtctgtgcgt 180
 gcccgcgggt cctccact gcagccggcg aggtggccc tgaccagag tcgcccgcc 240
 acccagctca cgtaggcatt agaggttttg gttctgagct cagggcctgg tttccatggc 300
 aaattttctc ccttcggcg aggtgctgc cggcggggtt cagctcccca gaaggagat 360
 ggcagcaaat ctgcgggagg agagtcttc ttatctttgc ttaaaaattg ggcagcgc 420
 ggctt 425

<210> 12379
 <211> 425

<212> DNA
<213> Homo sapiens

<400> 12379
gcccgccttc aggcctgtggc atgccaggcg agtcaccggc atcctgtccc tgcccaccgc 60
tttaagaaac tgtagttct gtttgaaatg tcatcactgg gctgaattc ccattctcag 120
ataatcccgc caggcgggtg ttggatgagg agtttattca ggctgtgggg gtctgtgcgt 180
gcccgcgggt ccctcccact gcagccggcg aggcctggccc tgaccagag tcgcccgcgc 240
acccagtcta cgtaggcatt agagggttgg gttctgagct cagggcctgg tttccatggc 300
aaatttctct cccttcggcg aggcctgctgc cggcgggggt cagctcccca gaaggagat 360
ggcagcaaat ctgcggggagg agagtcttcg ttatctttgc ttaaaaattg ggcagcgcat 420
ggctt 425

<210> 12380
<211> 677
<212> DNA
<213> Homo sapiens

<400> 12380
gctgcagtc ctgtctcttc agaccctctg tgctcttagg agactgtcgt tgttctctcc 60
tttttaaac atcctgtgcc ttttaacaga ataaacggca aggggtcccc actgaggtcg 120
aataatgctg gaggagggcc gtgggtccag gcatggtggg ggctgcctcc tgggtgttga 180
tgagcagaaa ttcaggccgg tttgacggca ggcacgtgag ggaggttgct gtgtgtcagt 240
ggcctgtgt ccctggcact gtgtccgaac ctgacagccg ccgctgtgtc actgggcacc 300
tgccctgctg accctccctc gtgacgggca ctctcacagc tttcctggcg aggcctgaggg 360
aaaaacatgg caaacaactc gcacatgact ttgcgttttt ggcttgtca tataataaaa 420
gtaatttgtg ggcctaaaat aaatcagggc tggggatcag atgcctccaa tctggccttt 480
aattgcaggc gtgacatggc ttgcctcggc gagtctgctc ctaattaaag tgggctggcg 540
gtgtatgaag ttcgcatgga tcctcagggt gctgacccag ccccggttcc ggagggccag 600
tgtgacgaca cctcgtggcc caggagagca gggcggggcca cccatggcca ccgtgccagg 660
aatgggggtct tctggct 677

<210> 12381
<211> 1014
<212> DNA
<213> Homo sapiens

<400> 12381
cacaactata gattacagtt ctagatctta gtgggtctgaa ttatgtggaa aaggtataca 60
ccacacttcg aggactggct actttcacta caaaaaaatg gactcaccct aagctttttg 120
taagaagcat gtattgaatt tgtaatcatt gtaaagggtt taaaaaatgg catttctcaa 180
aggatggcta ccattttgct ggagccaaag aagtatccat tcttatttat gatttctggg 240
gcctccctga cccaactact tgttcaagac ttttattttg acttagaatg atgtaaaaat 300
gacttctgtt ttggtgaagg aggcctgaaag tgaacggaaa tgttttaga gggaaataaa 360
gtataatgtg ccatttcaca gatcattgaa tgagaacaga agactcccct ttttaaaatg 420
tttgctgctg caactgtgtg gtacaatgaa ggaaaattca cgcttgca ga tgctttgttc 480
aagggcattt gtagtttcca tgtgtgttca actgacttct aaaggccttt caaacatatg 540
atcttgctc cacttctctg gaaattaacc tcctttcttt aaaaatacaa tgatttaaag 600
aaaattgcca ccataaaca agctaaaaga ctaggggaaa atatttgctg catatgtagt 660
caacaggatt accatctata atatataaag aggtcctata aattgaaaat ttggccaggt 720
gtggttgttc atacctgtaa tcccagcact ttggggaggcc aaggcaggag aatcactcga 780
gctgaggagt ttgagaccag ccctggcaac acaggggagac ccatctctca caaaaattaa 840
aaattagctg gacatgatgg tgtgcctgta gtcccagctg cttggggaggc tgagggtggaa 900
ggaccacttg agtctgggag gtcaaggctg cagggaacta tggtcacacc actgcactcc 960
agcctagggtg acagagcaaa accctatctc aaaaaaaaaa aaaaaaaaaa aaaa 1014

<210> 12382
<211> 1014

<212> DNA
<213> Homo sapiens

<400> 12382
cacaactata gattacagtt ctagatctta gtggtctgaa ttatgtggaa aaggtataca 60
ccacacttcg aggactggct actttcacta caaaaaaatg gagtcaccct aagctttttg 120
taagaagcat gtattgaatt tgtaatcatt gtaaagggtt taaaaaatgg catttctcaa 180
aggatggcta ccattttgct ggagccaaag aagtatccat tcttatttat gatttctggg 240
gcctccctga cccaactact tgttcaagac ttttattttg acttagaatg atgtaaaaat 300
gacttctgtt ttggtgaagg aggctgaaag tgaacggaaa tgttttaga gggaaataaa 360
gtataatgtg ccatttcaca gatcattgaa ttagaacaga agactcccct ttttaaaatg 420
tttgctgctg caactgtgtg gtacaatgaa ggaaaattca cgcttgacaga tgctttgttc 480
aagggcattt gtagtttcca tgtgtgttca actgacttct aaaggccttt caaacatatg 540
atcttgcttc cacttctctg gaaattaacc tcctttcttt aaaaatacaa tgatttaaag 600
aaaattgcca ccataaacia agctaaaaga ctaggggaaa atatttgctg catatgtagt 660
caacaggatt accatctata atataaaag aggtcctata aattgaaaat ttggccagg 720
gtggttgctt atacctgtaa tcccagcact ttgggaggcc aaggcaggag aatcactcga 780
gctgaggagt ttgagaccag ccctggcaac acaggggagac cccatctcta caaaaattaa 840
aaattagctg gacatgatgg tgtgcctgta gtcccagctg cttgggaggc tgagggtggaa 900
ggaccacttg agtctgggag gtcaaggctg cagggaacta tggtcacacc actgcactcc 960
agcctagggtg acagagcaaa accctatctc aaaaaaaaaa aaaaaaaaaa aaaa 1014

<210> 12383
<211> 105
<212> DNA
<213> Homo sapiens

<400> 12383
aggctgaggt aggagaatcg cttgaacccg ggaggcagag gttgcagtga gctgagatcg 60
caccattgca ctccagcctg ggcaacaaga gtgaaactct gtctc 105

<210> 12384
<211> 279
<212> DNA
<213> Homo sapiens

<400> 12384
agaagaaata caaatagcca ataaacttac tagtaatcac aagaaccgta atgagaaaaa 60
caagaaaata ggacatttgc ccatctgata gcaaaaattt aagagtgatt atatccagtt 120
ttcaatataa aatgataatc caatttaata aaatatacca tagaaatgat aagcaciaaac 180
aacttatgac ccagccaatc cacttccaga attttattct ggaatacaca tgaggccagg 240
tgcagtgggt catgcctgta atcccaaacac tttgggaga 279

<210> 12385
<211> 279
<212> DNA
<213> Homo sapiens

<400> 12385
agaagaaata caaatagcca ataaacttac tagtaatcac aagaaccgta atgagaaaaa 60
caagaaaata ggacatttgc ccatctgata gcaaaaattt aagagtgatt atatccagtt 120
ttcaatataa aatgataatc caatttaata aaatatacca tagaaatgat aagcaciaaac 180
aacttatgac ccagccaatc cacttccaga attttattct ggaatacaca tgaggccagg 240
tgcagtgggt catgcctgta atcccaaacac tttgggaga 279

<210> 12386
<211> 418

<212> DNA
<213> Homo sapiens

<400> 12386

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gctttacaaa | tctgacagtg | ttttgagaaa | ggaacacaga | acattgccag | aaggagccta | 60 |
| tgattgaggt | gaacctcacg | aatgtctttg | aaaacctgac | tctaaccaaa | aagtatgagg | 120 |
| gagggagagt | tctggctgct | gtagacgaca | ctacctcatg | aaagtgactt | agaaatcagc | 180 |
| ctggagtccc | tagagcaggt | ctaacaatga | gggaggcaag | attaaaatgg | agaaagaagc | 240 |
| ctgctagggg | ttgcatgagc | tggttgagtt | caccaagcca | gattttccaa | cgcaacattt | 300 |
| tatgtgtgtg | tgcttgtatt | cgtttatctg | gggagagaat | gaataacttt | ccatcagatt | 360 |
| ttcagaggaa | cctgtgaacc | cttcccctgc | ctactccctg | ctcccaatta | aaaactac | 418 |

<210> 12387

<211> 13371

<212> DNA

<213> Homo sapiens

<400> 12387

| | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|------|
| agttgccttg | ttgaagggga | tgctaaagaa | gaaatactgc | agccaccgga | acctcatcca | 60 |
| tgccaccaca | tcttgacacc | ttctccccct | tcagcttttc | caacagtcac | tactgtgtgg | 120 |
| caggacaatg | atagatacca | tccaaagcca | gtgttgcata | tggtttcatc | agaacaacat | 180 |
| tcagcagacc | tcaacagaaa | ctatagtaaa | tcaacagAAC | ttccagggaa | aaatgaatca | 240 |
| acaattgaac | agatagataa | aaaattggaa | cgaaatttaa | gttttgagat | taagaaggtc | 300 |
| cctctccaag | agggaccaaa | aagttttgat | gggaacacac | ttttgaatag | gggacatgca | 360 |
| attaaaatta | aatctgcttc | accttgtata | gctgataaaa | tctctaagcc | acaggaatta | 420 |
| agttcagatc | taaattgtcg | tgatacttcc | cagaattctt | gtgtggactg | cagtgttaaca | 480 |
| caatcaaaca | aagtttcagt | tactccacca | gaagaatccc | agaattcaga | cacacctcca | 540 |
| aggccagacc | gcttgccctc | tgatgagaaa | ggacatgtaa | cgtgggtcatt | tcattggacct | 600 |
| gaaaatgcca | taccataacc | tgatttatct | gaaggcaatt | cctcagatat | caactatcaa | 660 |
| actaggaaaa | ctgtgagttt | aacaccaagt | cctacaacac | aagttgaaac | acctgatctt | 720 |
| gtggatcatg | ataacacttc | accactcttc | agaacacccc | tcagttttac | taatccactt | 780 |
| cactctgatg | actcagactc | agatgaaaga | aactctgatg | gtgctgtgac | ccagaataaa | 840 |
| actaatat | caacagcaag | tgccacagtt | tctgctgcca | ctagtactga | aagcatttct | 900 |
| actaggaaag | tattgccaat | gtccattgct | agacataata | tagcaggaac | aacacattca | 960 |
| ggtgctgaaa | aaggtaataa | tatagtgtca | aatacttaaa | tgtctttcct | atgtgctagt | 1020 |
| cactgtttta | agcactttag | ctgtattgat | ttattatggt | ttattccaca | ctctaccata | 1080 |
| gaacctacag | caaaatctgt | cttagatact | aattttttta | tataagcttt | taatgtattg | 1140 |
| ttaacaat | ggtcacatta | tattactggg | ttttgtgttt | ctaaattatt | ttagtattga | 1200 |
| taactggata | acttattttc | tttttcttct | gtattataga | tcttagtggt | tttgatcggg | 1260 |
| tcaaaaat | atctgactga | ataattagaa | ataatttagg | gaagaatcac | ttaaaataac | 1320 |
| agtggcaaaa | atactgtaga | atgtcttgat | tggccatata | atgttactcg | tttttcctaa | 1380 |
| atgttttagt | attttttact | gttcctttta | ctacagatta | catttttttg | tttggttggt | 1440 |
| tttactgtct | tcacaaatgc | ttccaaatat | ggctgcttcc | aaccctgagt | ttaaccagg | 1500 |
| aacaatactg | caaactgctc | aattcagtag | tgagtgggct | atatgcatac | ctactcatca | 1560 |
| aagctattat | ttaaagaatt | attatttttt | tagcactctt | agcatttcaa | gataatgcat | 1620 |
| gcactcagtt | cccaaagtgt | attattgctt | cttgaacttc | ctctttgatc | tgctgaaagt | 1680 |
| aatgatggct | accatcttaa | acagacccta | aggttgagag | taaacaatata | aatttgaaag | 1740 |
| ctgtttattg | atatattgat | tatcagtggt | cacttaccta | tcagtgaact | ttggtagtga | 1800 |
| cacatacaga | ctggtat | taacgtgcag | gcaaaataag | tactgtgacc | ttgaaagatt | 1860 |
| tttttttttt | tttgagactt | gcactcaaaa | gatttttttt | ttgagtcttg | caactgtcacc | 1920 |
| caggctagag | tgcagtggca | agatctcggc | tcagcctccc | aagtagctgg | gattacaggc | 1980 |
| accactacc | acaccagct | aattttttatg | tttttagtag | agacaggggt | tcgatatggt | 2040 |
| tgccaggctg | gtctcaaatt | cctggcctca | agtgatctgc | ccacctaggc | ctcccaaagt | 2100 |
| gctgggatta | cagacgtgag | ctaccacacc | tggccttgaa | agattat | ctatttctga | 2160 |
| cccattatat | accaccata | ctgtagtgtc | tgtatttctc | ctcacacata | ctgtattttt | 2220 |
| taacttgaga | gagtgtattt | ggtagactag | atgacagtct | ttttgagaca | gagttttgct | 2280 |
| cttggtgccc | aggctgaagt | gcagtggcgc | aatcttggtc | caactgcaacc | tccgcctcct | 2340 |
| gggttcaagg | aattctcctg | cctcatcctc | cctagtagtt | gggaatacag | gcatgcgcca | 2400 |
| ccatgcctgg | ctaatttttt | gtatttttag | tagagacagg | gtttcactgt | gttagccagg | 2460 |
| atggtctgga | tctcctgacc | tcgtgatccg | cccacctcgg | cctcccaaag | ggctgggatt | 2520 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| acaggcgtga | gccaccacgc | ccagccaggt | gacagtctta | aactattttgc | ttaaattaca | 2580 |
| gaattatctt | ttcttgattt | atctttgttt | tatttgaagg | atcttttagaa | gataatgaat | 2640 |
| agtataatat | tactttacca | gtttaccata | atttttaaatt | gctaattgtct | tttgttcctc | 2700 |
| agcttcagaa | tttgaaatat | aactgcccag | ctgtaaactat | ataagaaaat | atgtagataa | 2760 |
| gaaattttca | ttttgagttt | ttagtatatc | aagcatgtgg | tattgtacct | aggaagtttt | 2820 |
| attgtttttt | tgtttgtgtt | ttgtttcttt | gctttttttt | ttaaaaaaa | ccaaaaaacc | 2880 |
| attactggaa | ataggatttg | gtgagggcca | gaaagatgta | tgatgtgata | tgcttattaa | 2940 |
| aagttactac | tacatgacga | gtctgttggt | ggctcatgcc | tgtaatccca | gcattttggg | 3000 |
| aggctgaggc | aggaagttca | cttgagccca | ggagtccata | accagtctgg | gtgacatagt | 3060 |
| gacaccaat | ctctacaaaa | gataaaaaac | tagccgggca | tggtgggtgca | cacttgtggt | 3120 |
| cccagctact | ctggagggctg | aggtaggaag | atcacttgag | cctaggagct | caaggctgca | 3180 |
| gtgagccata | attgcgtccc | ggcactctgc | ctgggcaaca | gagggagacc | ctgtctcaaa | 3240 |
| aaaaaaaaaa | aaaaaagagt | aagatatagc | taaaagcacc | ctactatgtg | ccagctcatt | 3300 |
| tctgtttgtt | tggtttttgta | tttcaaagca | aaaatcacta | tacatgtgat | ttctgggttc | 3360 |
| tttttactca | accttaacta | tgttatttgt | ttgattttta | ccgaagattt | tcctgtgtgt | 3420 |
| aaatgttctt | tgttgcagca | taactacaag | tagtctcatt | tttaatgtgt | tgccaaatat | 3480 |
| ttaccatatg | gattattttac | tttatagatt | gtttattttac | cttatagatt | attattttcct | 3540 |
| ttgtagatca | ttatcttata | gagccattgg | caccagaatt | agagtttttg | gggggtttttt | 3600 |
| ggtcctagaa | cttgtttagtg | aattacagtc | acacatttct | taatggcagg | gatatgttct | 3660 |
| aagaaaaata | tgctattagg | cagtttttgc | attgtgtgaa | tgctatagaa | tgtattttaca | 3720 |
| caaacctaga | tggttatgta | tatactacac | atctgggcca | tacaatgtaa | cctcttgctc | 3780 |
| ctaggctaca | aacttgtata | gcattattacc | atactcaaca | attgtaacac | aatggtaagt | 3840 |
| atttgtgtat | ctaaacatag | aaaagggtaca | gtaaaaatat | ggtatcataa | tcttacagga | 3900 |
| ccgctgttgt | ttatgcgggtc | ttgttgatga | aaacatcatt | atgtagtgca | tgactataat | 3960 |
| ggaatacttt | tgtattgata | cctaaaaaaa | acttttgcac | aagttactgc | ctgacaaaaa | 4020 |
| ttcttagcta | tcaattctaa | tttcagtcct | gacttagggc | tcctgaaaga | tttctcagat | 4080 |
| tcaactacag | aaggcccccac | acagtgtatg | atttgcaaaa | gcctatataa | aatacgcaat | 4140 |
| atctggttgg | ataacctcta | aaacaaaagt | ttttaacagg | aaaggcagcc | caaagttcca | 4200 |
| gggagaaaca | tgcattttgc | aagcaagggc | cacgcttaga | aaataaaaagt | ttttaagggt | 4260 |
| gagaactgcc | atgagagaaa | aagcacagag | attctggaag | ataactgata | gaaaaagggc | 4320 |
| tgaactgccc | tttttgtttt | gttcattttta | tttaagaaat | ggtaccagaa | tgccaagatt | 4380 |
| atgtgtccct | tcctttccaac | agccatctct | tcactgtgcg | ctgttagtag | caagagggca | 4440 |
| aggagacata | tggtgatgac | tcagactacc | actactggat | aaggtagata | gttcttttagt | 4500 |
| ggcaagagag | agttctggta | ctcttggtag | atgtatcaag | tattggactg | gaactcctct | 4560 |
| ttcaggagga | cccagaagct | gtattttctt | gcgtctccag | ctaaataaat | gtagggtggg | 4620 |
| caaaagcaat | catactcacc | tcattgcgtgt | tgaaaattga | caagacctat | gcatagccat | 4680 |
| caggtgtggt | aaaatagcag | agtatcatgg | cagaactgtg | tgttcattta | agaacaattg | 4740 |
| gcaaggctca | agacaaaata | atacaggacc | gtcgcatttc | tttttcttta | tcccacctc | 4800 |
| cccaacctga | gagttcacac | acaggattgt | attcttatat | tttctttcta | ttcctccagt | 4860 |
| gaaaactcaa | agatcaaata | cactcattta | ccttaagcca | taataaagct | aaccaatgag | 4920 |
| gcttacttaa | tgactctctc | ttcccaagag | ctaattttgt | ttttactagt | gaaaaacctg | 4980 |
| tatatagctt | cagtcagcat | tctcaaagta | cagccatgtg | ccactgtaca | caaaatcttt | 5040 |
| agcaataaat | aatgaagat | tttttaaaaa | actttaatag | ctatatcttt | atctgttttg | 5100 |
| gaaaaataac | tagtatttcc | aatgttattt | cagttattgc | tgtttaagac | atgactgagg | 5160 |
| tacacagtta | agttttaaata | gagtcagatt | ttaaaagtga | ataggacaca | tgttacatag | 5220 |
| tatggcaaaa | atcatgaaa | gtgttaagca | attgaaatcct | gtttgggaaa | cactggctta | 5280 |
| ggcgtttcat | aacgcaaatg | accaaagctt | tccttttttg | acacaaaaa | tcacagtaa | 5340 |
| gctcagtaga | gaagtcactt | gccagctgac | ttctctactg | aagattccct | tcaggcttgg | 5400 |
| agaactgaat | gatgtctgta | gagtgacagg | aaagtcatgg | gagagagtca | tttctgtata | 5460 |
| cattatcttt | gctcaataag | catcataatt | cttgataatg | agtggaaaag | gtttcttgca | 5520 |
| tttttttgca | tttttaaaaa | ctgatctaga | tatttgtgac | aggaattttt | agaatgtcaa | 5580 |
| gaaagctctc | tgattttgtt | tagatgacat | gttaatttgt | ctaaattttt | atgtgtttta | 5640 |
| tttagatggt | gatgttagtg | aagattcacc | tcctccccta | cctgaaagaa | ctcctgaatc | 5700 |
| gtttgtgtta | gcaagtgaac | atagtgaagt | tctcttttgc | ttttacattt | acttcatatt | 5760 |
| ctaataataa | actccgaaaa | acatacctga | ttttaatcta | ttagctattg | tgctacataa | 5820 |
| ttaaattcaa | aaacaagtaa | attgatgttg | acatgctttt | aattctttgt | ttgaaaaatg | 5880 |
| cttttaaatt | atatttttta | cttgctaaga | tcgatagaaa | ttactgcatt | tatgttagat | 5940 |
| atcagaattc | aattcattta | aatgtaatta | taggctgggc | atgggtggtt | aagcctgtga | 6000 |
| tcctagcact | ttggggaggcc | taggcagggt | gatcacctga | ggtcaggagt | tggagaccag | 6060 |
| cctggccaac | atggtgaaac | tccatctcta | ctaaaaatat | aaaaattagc | tgggcatggt | 6120 |
| ggtggacacc | tataatctca | gctacttgag | aggctgaggc | aggaaaatga | cttgaacccg | 6180 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| ggagttggag | gttgcagtga | gccgagattg | cgccattgca | ttccagcctg | ggcgaagagc | 6240 |
| aagatttcgt | ctcaaaaagt | aaataaataa | ataaatgcaa | ttacaaagcc | aggtgacgtg | 6300 |
| gctcatacct | gtaatccccag | caccttgagg | ggctgagatg | cactgatcac | ctgaggtcag | 6360 |
| gagttcaaga | ccagcgtgac | caacatggag | aaaccccgctc | tctactaaaa | atacaaaatt | 6420 |
| agccaggcgt | ggtggcgcat | gcctgtaatc | ccacctactt | gggagactga | ggcaggagaa | 6480 |
| ttgcttgaac | ctgggaggtg | gatattgcag | tgagccgaga | tcacactatt | gcactccaac | 6540 |
| ctgggcaaca | agagcgaaac | tccatcttaa | aaaaaaaaatg | caattataag | tgtatttgca | 6600 |
| atctggtgta | ttttcattca | ttaaaaatag | cacttattga | ctcatgcctg | taatcctgcc | 6660 |
| actttgggag | accaaggcgg | gcagatcacg | aggtcaggac | atcaagacca | tcctggctaa | 6720 |
| cacactgaaa | ccctgtctct | actagaaata | caaaaaatta | gctgtgtgtg | gtggcatgca | 6780 |
| ccagtagtcc | cagctgctcg | ggaggctgag | gcaggagaat | cgcttgaacc | ccggaggcag | 6840 |
| aggttggagt | gagccgagac | catgccactg | cactccagcc | tgggcaacag | agcaagactc | 6900 |
| catctcaaaa | aaaaaaaaaag | tagcacttat | ttatgaaaac | attaattgct | ttccttagat | 6960 |
| ttaggtcagt | aaacattttct | gttgggtggg | cgctactgga | ttggtgttaa | ctgaaagaca | 7020 |
| tttaacacca | ctggagtaga | ctgagcacat | tggctcatal | ctgtaatcgc | agcactttgg | 7080 |
| gagtccaagg | cgcgaggatt | gcttgagcct | aagagtttga | gaccagcctg | ggcaacacag | 7140 |
| tgatacctcc | tctcttctaa | aaataaaata | actgtccagt | tgtggtggtg | ggcgctgta | 7200 |
| atcccagctg | cttgggaggc | tgaggcagga | gaattgcttg | aaccaggat | gcagaggttg | 7260 |
| cagcgagctg | agaccacgcc | attgcattcc | agcctgggca | acaagagcaa | aaaactttgt | 7320 |
| ctcaaaaaat | aaataataaca | acaaaaaatt | agccagggtg | ggtggcatgt | gcctgtagtc | 7380 |
| cttgctactc | aggaggctga | agaagaagga | ttgcttgatc | cctgtagtgt | gaggctgcag | 7440 |
| tgagccatga | tcgcaccact | gtactccagt | ttggttaacag | tgagaccccg | tctgtggaag | 7500 |
| aaaaaaaaaaa | gaccactgga | gtatcagaac | tgggagaaaag | tgatgatact | ttaaaacatt | 7560 |
| gataatatac | ttctccctat | taatcctcta | aaaaagagtg | cagaaacagc | ttgattgtat | 7620 |
| ttacagtgtc | tcatgtctcag | tggaggtgct | cacttgtcta | agtacatttt | accaatatat | 7680 |
| taattttgac | tgatttttgt | tttgtttcat | ttggttttct | ttttatttat | ttatttttta | 7740 |
| tttatttcatt | tttttgagat | ggagtctcat | tctgtcgccc | cggttgaggt | gcagtggcac | 7800 |
| gatctcggct | cactgcaagc | tccacctctt | gggttcatgc | cattctcctg | cctcagcctc | 7860 |
| ccatgtagct | gggactacag | gtgcctgcca | ccacaccggg | cttatttttt | tgtatttttt | 7920 |
| ttagtagaga | cagggtttca | ccgtgttagc | caggatggtc | catctcctga | cctcatgac | 7980 |
| cgcccacctc | agcctctcaa | agtgcctgga | ttacaggcat | gagccaccac | gcccggctaa | 8040 |
| tttttttgta | tttttttagt | agagacaggg | tttcaccatg | ttagccagga | tggctctccat | 8100 |
| ctcctgacct | cgtgatcgcc | cgctcagcc | tcccaaagtg | ctgggattac | aggcgggagc | 8160 |
| caccacgccc | ggccttgttt | tgttttattt | cgagttggag | ttccactctg | tcactcaggc | 8220 |
| tggagtgcag | tggcacgata | tgggctcaag | ctgttctcct | gcctcagcct | cctgagtagc | 8280 |
| tgcgattaga | ggcatacacc | gtcactccca | actaattttt | ttattagaga | tagggctctca | 8340 |
| ccatgttggc | caggctgggtc | ttgaactcct | gacctcaagt | gatctgcctg | cctcagcctc | 8400 |
| ccaaagtga | ttttgactga | ttttaagata | aatgttaaag | agccaagcac | aatggcttat | 8460 |
| gcctgtgatc | ccagcacttt | gggagaccaa | ggcagggtga | tctctgttcc | atttgcctta | 8520 |
| ggagtttgag | accagcctgg | gcaacatggc | aaaaccctgt | ctgtataaaa | tcaaaaatta | 8580 |
| gccaggcgag | gtggcatgca | cctatagtcc | cagctactca | agaagctgag | atgggaagat | 8640 |
| tgctgagcc | tgggaggttg | aggctccagt | gagccgagat | cgcgctgggt | caacagagtg | 8700 |
| agaccctgtc | tcaacaacaa | ttaaaaagaa | tgttgaaagc | aatgaaacgg | tatacttcag | 8760 |
| ttgtctaagt | ctgtcacgtt | gtctgtagat | taagcagtat | acttcacttg | tctgtcacat | 8820 |
| tatctataga | ctgtaataca | ctgatgactg | aatttattta | cttaggtttt | gaaggaagga | 8880 |
| aacagaatgt | tctcgaatta | atagaaacta | caattttttt | tttttagaaa | cttcagaaat | 8940 |
| atgcttacct | agaaactaca | aaatttttgt | ggaagcgata | gtttctaaaa | tctttaggat | 9000 |
| ctgttttttg | tattacttta | atgcaaagaa | atttcagaaa | ttcaagggtg | taataacaat | 9060 |
| aagattttcat | ttttctcaga | tacacctgta | agatcggaat | ggagtgaact | tcaaagtcag | 9120 |
| gaacgatctg | aacaaaaaaa | gtctgaagta | agtccttttg | gaattggaac | agttatagct | 9180 |
| taacattttct | actcttttgt | taactaatct | tgcagttgtt | gaaatagctg | tcactttaag | 9240 |
| atcgttaaat | atagtttgta | atttttgatc | ggcattttct | atactaagat | ttcagatgaa | 9300 |
| aagcccatat | aaaaggtagg | ttctgaaatt | ttttaaaagg | gtaacctgat | ctacatacaa | 9360 |
| ctatcacttt | aaagtattgt | tttctcaagc | tgtttttgaa | atatgtaaat | tatgcttcaa | 9420 |
| ataattttga | aggtatgaat | gaaataggag | ttactatttt | cagggtccta | attctttctt | 9480 |
| acatttctag | atgctttcca | ttataacact | aggcacatag | tcgcttcttt | tgtttttttc | 9540 |
| tggctacctg | gcatttcttt | gacattcagag | aaatgttttg | gcaattaaat | attttgaggg | 9600 |
| cgtggcatgg | tggctcatgt | ctgtaatcac | agcacttttg | gaggccaagc | agaaggatca | 9660 |
| cttgagccca | ggagttcaag | accatcctgg | gcaacatggg | gagaccttat | ctctacaaaa | 9720 |
| atttttaaaa | ttagccaggc | gtgggtggcg | atgtctatgg | tcccagcttt | ttgggaggct | 9780 |
| gagatgggag | gattgcttgg | gccccagagg | tcaaggctgc | agtgagccat | gatcacacca | 9840 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ctgcactcca | gcctgagtgga | cagagtgaga | ccctgtctca | gcaacaacac | atttgtccat | 9900 |
| aggagataac | atTTTTtatt | aacattaata | ctttttgtat | tttctcccat | actttaatat | 9960 |
| ctctgaaatt | tagctacatc | ttatatTTTga | ttttaagaca | tgatgtagtt | taattgacat | 10020 |
| ataaaatata | ataatgatata | aattagtaaat | agtggctggc | aaaacacagc | tgatgttcc | 10080 |
| ttcatgcagt | agcccatgct | tttcagtgct | catccagaaa | catttactcc | aaggagaaat | 10140 |
| agcataacat | tttaaaatTT | taagcctaata | taaaaaacia | ttgttttgctt | ttcctctgat | 10200 |
| gctgaaaatg | ataggccttg | atTTtcttggg | atatataccc | ataacagacc | cagcttttcta | 10260 |
| ttattttgtat | ataaaatgaa | tgtattgtaa | taggtattaa | atgtcttcct | cgtagggcct | 10320 |
| gataacctct | gaaaatgaga | aatgtggtaa | gttggttagat | tttttttttct | cttttttactg | 10380 |
| tagatTTTTat | tgattaatTT | ctacaaaata | acatgcttca | tagttcatgc | tatatagtta | 10440 |
| tttctgtatg | tgaaaatgtc | taggacaact | cttgtagaag | cttaatatTT | tactataatt | 10500 |
| cttccaaatt | aattattacc | accagatagt | agtattgatc | tggaatatca | tgggagcatt | 10560 |
| tactatcaat | aattacaggc | taatgggaaa | gagattTTTT | aaaaatatTT | ttctgttttt | 10620 |
| tattttctgt | ttttaaaaac | acctagaagt | tagatcccga | cttaaatata | tgatggaatt | 10680 |
| gcttctgtag | aaacctattg | ttttagaaat | cttcttttta | gtactttttc | atTTtatttgt | 10740 |
| gaagaccaat | aaaatttgta | aagaatgaat | gaatttttagt | agttaacatc | ttttgttact | 10800 |
| aatcttaaac | actggtaatt | aaagagtaaa | ctacaatcta | aacaacataa | aactttaaaa | 10860 |
| gtggagttat | taggcctggc | gtggtggctc | acacctataa | tcccagcact | ttgggagacc | 10920 |
| caggcaggca | atcacctgag | gtcaggagtt | cgaaccagc | cttgagcaac | atgggtgaaac | 10980 |
| cccgtctcta | ctaaaaataa | aaaaaatagc | taggcgtcat | gccatctgcc | tgtaatccca | 11040 |
| gctactaggg | agactagggc | aggagaatcc | cttgaacccc | ggaggcagag | gttgacagtgc | 11100 |
| gccgagattg | cgccattgca | ctccaaccgc | ggcaacaaga | gggaaactcc | gtctcaaaaa | 11160 |
| aaaaaaaaaa | aaaacaagta | gagttattat | ttcaagggtgc | aaatagtgca | ttaatatacc | 11220 |
| ctgaccttgt | tgattttctta | aaattttttt | tttttttttt | tttttttttt | ttgagacaga | 11280 |
| ggtcttgctc | tgtegccccag | gctggagtgc | agtggcgcg | tctcggtcca | ctgcaagctc | 11340 |
| cacctcctgg | gttcacaaca | ttctcctgcc | tcagcctcct | gagtagctgg | gactacaggc | 11400 |
| gcccgccacc | acgcctggct | aatTTTTttg | tatttttagt | agagacgggg | tttcaccatg | 11460 |
| ttagccagga | tgatctcgat | atcctgacct | catgatcggc | tcgcctcggc | ctcccaaagt | 11520 |
| gctgggatta | caggcatgag | ccaccgcgcc | tggcctgacc | ttgttgattt | ctatacaaa | 11580 |
| acatttcagt | tgcaactatt | cccttagaag | ataggcatat | agtatatgta | ccttaaggga | 11640 |
| atgtaatatg | tcaagacctta | gattttatgaa | gtaagaataa | cgagaatcct | cacattgcag | 11700 |
| aagtactcac | tgacagatttc | tgtgtgacca | caataatacc | tgacatgatt | ttctgtgcac | 11760 |
| actacacttg | tatttatatt | gttcttgacc | tgtaaaatta | tgggtgcccag | gagagaaagt | 11820 |
| tttctctttt | catgcttgcc | aacatttaaa | aaattaaaga | gttatatata | tatgatgcta | 11880 |
| caaaggatgg | tgattaacaa | aggctttgtg | ttgctactta | gatcatccag | cgggaggtat | 11940 |
| tcactatgaa | atgtgcatag | aatgtccacc | tactttcagt | gacaagagag | aacaaatatc | 12000 |
| agaaaatcca | acagaagcca | cagatatTTg | taatttgttt | aataaataat | tttttagtaag | 12060 |
| tagttaacac | tggcagggaat | gagaaaagct | catttgccat | tgtgaaatga | cacttgccaa | 12120 |
| gaataaaaaca | tgatttttcca | aagtTgcttg | gactagtcat | gaaataaatg | aaatacttaa | 12180 |
| ttctatTTtca | cattgagatt | aaaaactaaa | atagaaaact | gcagtataaa | aaatcttttg | 12240 |
| tgTTggaaag | actaaattat | catggatatt | tttcttacat | tgtgataaaa | ttggTTTTat | 12300 |
| ttccagcata | agattTTTTaa | aagaagcaat | cattttcagt | tattccaaat | aaatttacia | 12360 |
| ttgttttgca | tttaccaggt | tttgtttggc | ttaaattcta | aattcccttg | tggaaattta | 12420 |
| tttgttccag | aaaatgagaa | tgtctgtgga | catggTTTTt | agtagtttga | aagtattttct | 12480 |
| gaacactgac | tagttattgt | ggtgttttca | ctgtaggTTt | tggtaatcga | tgtggaaaac | 12540 |
| ccaaaggacc | aagagatcca | ccttcagaat | ggacatgatt | cagggagcta | gaagacactt | 12600 |
| taagttatac | tggaaaattc | aggtgccact | gaaagccaga | tttatagtat | tccatcttta | 12660 |
| atatgtggga | ctaacagcag | tgtagattgt | taccttaata | ttttttgctg | ggaccatcta | 12720 |
| cctgccttat | actacactta | ggaaaaagta | ttacatatgg | tttattttga | aacttcaagt | 12780 |
| attattgcct | taatgtctct | taacctgttt | acacgtctgt | tgtagacatg | ttaatatagt | 12840 |
| aataccttta | tgatatattg | agtttaagga | ctactctttt | tctgttttat | catgtatgca | 12900 |
| ttatttttgta | tatgtacagg | gcaagtaggt | atataatttg | ataaagttgc | aattgaaata | 12960 |
| ttattaacag | aagatgtaag | aaatttctgc | atgggtctaaa | tctttgtgta | ctttattttgt | 13020 |
| aaattattttg | ccctggagtt | ttagaaaata | gtttctgaat | tttaaacttg | ctggattcat | 13080 |
| gcagccagct | ttgcaggTTa | tcagagatca | aagattgtaa | taataatttt | gtaaattgta | 13140 |
| agcaaaaagt | tatttttata | ttatatacag | tctaattgtt | catcctaatt | gttctgtttt | 13200 |
| tcacttagtc | agagatttcag | taagtgcctt | ggaacaatat | tgaattctct | tagcttTgtgt | 13260 |
| gtgtttcttt | aatattttgaa | ctcaagtggg | attagaagac | tatcaaaaata | catgtatgtt | 13320 |
| tcaggatatt | tgacctgtca | ttaaaaaaaa | caaacagttt | tacagtgcct | a | 13371 |

<210> 12388
<211> 264
<212> DNA
<213> Homo sapiens

<400> 12388
ggagacagtc ttgctctgtc gccagactg gagtgcagtg gcgtgatctc aactcactgc 60
catctccacc tcctgggctc aagcaattct cctgcctcag cctcccaagt atctgggact 120
gcaggtgtgt gccaccacac ctggcacaatt tttgtattat tagtagagat ggggttttac 180
tgtgttgctc aggctggctc caaactcctg agctcaattg atccaccac cttggcctcc 240
caaagtgtct ggattacagg cgtg 264

<210> 12389
<211> 1220
<212> DNA
<213> Homo sapiens

<400> 12389
atTTTTgtta taaagataat acacacagag agaagcgct gcagtgaatc tttgtgtaac 60
catcatgcag atcaggagac aaaccatggc ggccccctcag aactctgcca cgtgtttctt 120
cccatctttt cctgctgctg ctcccagaag taacctatt ccgacttttc tgggttttct 180
tggtaatcaa tttctggttt ttctttatag agttgttgcc taagtatgca ccttcaaca 240
cgatactgtt gttttgcttg tactttttgt taactgtaca tataataaat tatgttatat 300
atTTctttat tgcaggctcc tttaatccag tgttatgttt gggagacgca cccatacaac 360
tgcattgtcac cgtagcttgt tcatttccag tgcctgttag tgccttca tgtgaattta 420
tcacagttta ttagtatctt ccactctgat ggacatttgg tagttggaat tttcattact 480
aatgatgccc ctgcctgtgg tcatttctgc ctgcctcttg atgcacacag gcacgcattt 540
ctgctgggta tgtcctagtt ccagactcac tgggtatacg gtatggatgt aattattgtt 600
agtTTtccag tgtgattaaa catcagatta gcgcccatta gcaatgtctg aggcctgcctg 660
ttgctccact cgggtgcccg tttgggtatta ggagcttctt cagccattct tgtgtttgtg 720
ttcatgtatc tcattgtggg tttaatTTtC atttctataa tgactaatgt ggttgaatat 780
gtttttgtat gattatttgc catttgtatt tgcctttttt aaagtatttg tacaggactt 840
tcacccattc tcttattgtg ttgccttata taggaattat ttctatgttc tagatatgga 900
tcctttgctg gccatatatg ttgaaagtat ctccactctt tggcttgcct ttcattattt 960
taattgtgtc ttgctgaaca gaaggTTTT atgtcaagggt agtttttagt caatcccctc 1020
atTTatgatt ggtgcatttt gtcaggTTta agaagtcttt tctctcccat aagaacgtga 1080
agaaaacata ttctcctatg ttttatagac cataggttgg caaactTTTT tctgtaaagg 1140
actaaatagt aaacatttta agctttgtgg accacagata gtctctgcta catattcatc 1200
ttaaaaaaaa aaaaagaata 1220

<210> 12390
<211> 409
<212> DNA
<213> Homo sapiens

<400> 12390
caggactgat ggtgaaacct gaaggcatag acatgaccca tagctgcctt tatgtttttac 60
aacttctgtg tgattttcat tttcctcgtt tgtcagtcac ctcccttgac ttccacatc 120
tatctatgtt gcacccatgc ctgggtgcctg gcctggcgga ggcatggag cattggaaag 180
aatgaatgaa tgagtttagc cctctggaga gtgtatgctg aaaaactgtt acctgcctt 240
taagagctta aaagtgaaga gaatgaattt tgatagaacc atttttttaa gtaaggacca 300
tccttctgtg tccccagaaa attaaataga gtcagaaaat ggcaaagcca agttagaagc 360
attcaggtgt ggaagttgta tagggcactt gagttaaaaa aaaaaaaaaa 409

<210> 12391
<211> 409
<212> DNA
<213> Homo sapiens

<400> 12391
caggactgat ggtgaaacct gaaggcatag acatgaccca tagctgcctt tatgtttttac 60
aacttcctgt tgattttcat tttcctcggt tgtcagtcac ctcccttgac tttccacatc 120
tatctatgtt gcatcctagc ctggtgcctg gcctggcgga ggcattggag cattggaaag 180
aatgaatgaa tgagtttagc cctctggaga gtgtatgctg aaaaactgtt acctcgctt 240
taagagctta aaagtgaaga gaatgaattt tgatagaacc atttttttaa gtaaggacca 300
tccttctgtg tccccagaaa attaaataga gtcagaaaat ggcaaagcca agttagaagc 360
attcaggtgt ggaagttgta tagggcactt gagttaaaaa aaaaaaaaaa 409

<210> 12392
<211> 599
<212> DNA
<213> Homo sapiens

<400> 12392
aaataatgac ttttgggtgct gtgggatttg tgagctcaag gacttgtgct gcaagaacaa 60
caaataagcag cctgcttatt taatagaaag tgccctcagt gagggctctga tctgcttttg 120
gcttgaggaa tgcttcagaa ttttaattat ttggaggagc ttccttgaag ttgctttatg 180
gttgctttct cttcacatca aactgaagac ataactgtaa caaatgagta ttccctacacc 240
aagatgtgac acagcaaagc aatttatgga tgatgacatt aatgatcatc atcagcatgg 300
ctagggttct gggttgatta gtagctcaga ctgctttctt aagatgaaat agtcatttaa 360
atgaacatgg catcttctct tgaacaatgc ttaggttatt ttttttctc atagagattg 420
aagaccatt actcagcatt atctccctct ctccctgaa acttttgtct gttcggaatg 480
agctactcca ggaagattta ttgcttttcc tcagtgttct tattagcatg ctttatatag 540
cttattgtga cacttatgat aatacaaaaa gtaataaaaa tacaattatt atcattcgg 599

<210> 12393
<211> 599
<212> DNA
<213> Homo sapiens

<400> 12393
aaataatgac ttttgggtgct gtgggatttg tgagctcaag gacttgtgct gcaagaacaa 60
caaataagcag cctgcttatt taatagaaag tgccctcagt gagggctctga tctgcttttg 120
gcttgaggaa tgcttcagaa ttttaattat ttggaggagc ttccttgaag ttgctttatg 180
gttgctttct cttcacatca aactgaagac ataactgtaa caaatgagta ttccctacacc 240
aagatgtgac acagcaaagc aatttatgga tgatgacatt aatgatcatc atcagcatgg 300
ctagggttct gggttgatta gtagctcaga ctgctttctt aagatgaaat agtcatttaa 360
atgaacatgg catcttctct tgaacaatgc ttaggttatt ttttttctc atagagattg 420
aagaccatt actcagcatt atctccctct ctccctgaa acttttgtct gttcggaatg 480
agctactcca ggaagattta ttgcttttcc tcagtgttct tattagcatg ctttatatag 540
cttattgtga cacttatgat aatacaaaaa gtaataaaaa tacaattatt atcattcgg 599

<210> 12394
<211> 10117
<212> DNA
<213> Homo sapiens

<400> 12394
gaagccagga gtcctttaga agtctatgat tcccatacacc ggggggctgg acagctctct 60
tggggacctt ccctgtgcac ctgtgaccgt gtctgcccct cataacaccc tagtcacaat 120
gccctttcag tttcccaaaa aagctagact ggtcccactt ctgggcctct gcctggagta 180
ttcacagacc ctcagtcggg cccagccttg gatgagtgtc agcagaggcc ctcccactc 240
cacctggatt aaagcaggtc tgcctggcgc cctgcaccac acacccttcc ctccctcagc 300
gtgtctggcc cgaccagcac gcagcttcca tgatggcagg gcctggcctc tcctgcacgc 360
catgcaggcc tggcccttgc caaccactgg accttagtaa atatttgagg agcaaaagaa 420
tgaaacgcta ggtgggtgca tgagtgggtg cagagtctgg ttctgaggtt tctgagctta 480

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| aggccgtgca | gcagctggct | ctgctccctt | gagattctgg | tgccactcc | cttgccaggt | 540 |
| ttcaggcacc | cgtggatgag | cagtcagaga | gtctacagaa | cacgcacgac | gacagcagga | 600 |
| acaacgcggc | ctcagccagg | taaagcaagt | ctctccactg | gagagtgtgc | acgcgatgtg | 660 |
| gcttctgagg | ccaacaggac | gacaaaaggaa | actccaggct | tttccccttt | ggcgccagct | 720 |
| ctggggccct | ggctgggcct | ctttgtaaaa | caaggggtca | gagaggctct | cagcccagat | 780 |
| gagtaactta | taagtgcct | catagataaa | acagggtgttc | ctttgataga | cagaacccca | 840 |
| ttttaccatt | ataaacagcc | atggctgctg | cctgcatcca | ctttcaccac | tgggagctgc | 900 |
| acgtgcttat | gctaggggac | tcgggtcact | gaaatgagaa | agtgaccgag | gactgttccc | 960 |
| cagagccagc | gcatgcgccc | cagtacctgc | cagaggaaga | cggctgtgca | ttaacaccta | 1020 |
| cgacacagtc | acaggctgat | ctttgtgtat | tttgctttca | ggaaaacata | gtcacagggc | 1080 |
| agaggacagc | actgtagaat | gagaaccaga | agagcctagg | gggtgtgcaga | gggttgctga | 1140 |
| agtggccaga | gtcacagcgc | ggctgggtgac | agagcagagt | ctggccccag | cctcccctgc | 1200 |
| acagccgcca | tttattagct | cagatgcttc | caaattcaaa | atgcagtgtc | accagaaacc | 1260 |
| gctgacacag | gctgatgggt | cagcaactca | cagccatccc | ctgggggatgg | gtcctacttc | 1320 |
| agaagtagac | aaggctcctt | tggagacaga | gccttcctgg | ttctcactca | ctgaggcctt | 1380 |
| ccaggaagac | gttccattct | gagtgtcttg | gccaagtgg | attttagtgc | agggatatgg | 1440 |
| tgaatgggg | gagcgggctg | ggcttacatg | aggctgtccc | tttaggaata | atccaggaag | 1500 |
| tgtcccggaa | aagagagaga | agacatcaga | gcctaaagga | aacagctggg | ctccgaacgg | 1560 |
| cctctcagaa | gagcctctac | tgaaaaaatat | ggatcatcac | agatccaaac | agaaaaatgg | 1620 |
| ggcgcatgtc | cccacatgga | gggaacaccc | gacttagcaa | atgggaccgg | tccccagggt | 1680 |
| caggctctta | gagcaggcac | aagactggga | cactggacag | aaggttggtc | ccatgatggg | 1740 |
| tttttttatt | ttttattttt | gagatggagt | ttcgctctgt | tgcccaggct | ggagtgtaat | 1800 |
| ggtgcaatct | cggtcactg | caacctctgc | ctcctgggtt | caagcgattc | tcctgcctca | 1860 |
| gcctcccgag | tagctgggat | tacaggcgcc | tgacaccacg | ccccgctaat | tttttgtatt | 1920 |
| tttagtagag | atggggtttc | accatgttgg | ccaggctggg | ctcaaacgcc | agacctcagg | 1980 |
| tgatccacct | gcctcagcct | cccaaagtgc | tgagattaca | ggggtgagtc | accgcgcctg | 2040 |
| gccaatgttg | ttgttgtttt | taagacagaa | tttcaactct | tggtgcccag | gctggagtgc | 2100 |
| aatggcgcaa | tctctggctc | accgcaacct | ccgcctccca | ggttcaagcg | attctcctac | 2160 |
| ctcagccccc | agagtagctg | ggattacagg | catgtaccat | cacaccgggc | taattttttg | 2220 |
| tattttaagt | agagaggggg | tttctccatg | ttggctcagg | tggcctcgaa | ctcccaacct | 2280 |
| caggtgatcc | gccacctcg | gcctcccaaa | atgctgggat | tacaggggta | agccactgtg | 2340 |
| cccggccggg | tatttcttta | aaaggtaatc | atttgtcaag | agtaaaaccc | agaagctctg | 2400 |
| acaggccata | atttcagatc | ctttggcctg | ggcagttttg | attttccccc | tgtttgcatg | 2460 |
| gcatgaagtc | ttcgctcctg | tcacagtagc | ttgggatgac | tcccagttca | catggaaaac | 2520 |
| atcagggagt | gacaatccag | caagaaatcc | ctcgctagtt | ccacacctac | gcaccgagcg | 2580 |
| tcgggtgtgcc | aggccctgtg | ctgggcagag | tggtgtatgt | caggggtgtg | cggttttagg | 2640 |
| taacaagact | ccaccactga | gtggcacctg | ccctattgca | aaggaatcca | gttcctccgg | 2700 |
| aataacagtc | ccactgttaa | cctgggtgcta | ctgggaagtt | ccacacagta | atctgagcag | 2760 |
| tgactcatgg | aaggatgagg | aacggttgct | cagcttctc | tccctttcca | gcaagggcag | 2820 |
| agctcctaaa | gccagggtt | agcacctggc | cagcttatgt | ggcagatggg | ctcagttaca | 2880 |
| acttcgctgc | tttcccaaac | tcctgcagcc | ctcctgagtc | cgacttccgt | tgatagcaag | 2940 |
| gcaactgggtg | gcagcaacct | tttttctagt | agttttttcc | cagcagtttt | ccattttctc | 3000 |
| acagtatcct | tttcatttag | aggagcttaa | taaagtcttt | ttaaaagta | acccacgtga | 3060 |
| cgtaaaat | tacaagtttt | tgtggcaaaa | tgatgcccag | atagtcacat | ttaagcaaat | 3120 |
| attcagcttg | attcagtgat | taacagcaaa | tgggtctacg | tgctaacaatg | gcagcacatt | 3180 |
| caacacataa | cacatcactc | acattgacgt | ccactgtccc | tgcacctgct | acttcagggg | 3240 |
| cactgaggct | cctgttccaa | ggccttacaa | acctatgtgg | tggcctgcag | ggcaaaaagga | 3300 |
| attatcatta | caactggtta | gaggtaggaa | ttcagaaaaga | aattgaggag | gccaaaacaca | 3360 |
| cgctgcttga | ggctaaaggc | ttaagacgct | tcttacccaa | gagtgcacctc | agagtttcac | 3420 |
| atcccagaca | atcacactgt | ggttgagtga | aatcaagtgc | agttttat | aagaactgga | 3480 |
| aagaataatc | agtatctgtg | aaagaaaatc | caatttagaa | tatttaaata | aacatttatg | 3540 |
| taaaaagaag | agtagaataa | ttactccgtt | cagttcctct | ccttgcaatg | ggataggctg | 3600 |
| cctctgctgc | agatggctgg | gtcttccaaa | cccatgacaa | gtgccacggc | ctctgcagca | 3660 |
| gtggcccgaga | gagtaggcac | ttcccagcat | gacagagagg | ccgaggcctt | ctaaccttgc | 3720 |
| caaaccacta | caaaagcaaa | ctagggtggg | caagcccaac | tacctaaggc | aggaagaaaag | 3780 |
| tgcagtgaag | ggacagtggg | gtgctgtgcg | tatcgtgggg | gtactcctaa | gcagctagct | 3840 |
| gttggcgaga | tcttacaagg | cctgatcggc | taacgcagct | tcctggttta | ggaacatttt | 3900 |
| ccccggctcg | atcaatcccc | cagggttggt | aatgaacaga | agggatgaat | aaagcctact | 3960 |
| tttttaggctc | aaggagcagc | tcgtgaaggg | gtggcaggtg | cgctgctgcc | ttgttttctg | 4020 |
| tcctgctaag | aggctcacc | cgcgacctct | tctgtaaaact | gccactcagc | agcggcctgc | 4080 |
| aagccctcac | gaaaggcttc | actctatgct | gtttccaggt | agctttgttc | tgacagtacc | 4140 |

| | | | | | | |
|-------------|--------------|-------------|-------------|-------------|-------------|------|
| tatttttccac | ttcagaatatct | ccacttttaaa | acctgcaatg | gaaaaataaaa | tctcttgaca | 4200 |
| gtttttttaaa | tcgagaaaaat | tgggtgatgtg | gccttggcag | caaataccca | gaaagccttt | 4260 |
| acctcattaa | cctgattctc | cacgggccct | gccactgcta | aatttataaa | gctaaaaata | 4320 |
| atctcaagat | catggaacta | aaaagaagtc | aatcactttac | caaatcctgt | ccttaaggag | 4380 |
| ttcatcttgg | ctgggctgtg | tggctcacgc | ctgtaatccc | agcacttttg | gaggccgagg | 4440 |
| cgcgtggatc | acttgaggtc | aggagttcga | gaccagcctg | gccatcatgg | tgaacccccg | 4500 |
| tctctactaa | gaatagacaaa | aaattagctg | ggcatggtgg | cccaagcctg | taatcccagc | 4560 |
| tactcaggag | actcaggcag | gagaatcgct | tgaacccggg | aggcagaggt | tgccggtgagc | 4620 |
| cgaaatgggtg | ccactgcact | cgcgcctcca | gcctggggcca | cagagcaaga | ctgtcttaag | 4680 |
| aaaataaaaa | aaatggagtt | catcttttat | ccctaagtaa | ttgctgactt | ctgctctggg | 4740 |
| attataaaca | gggtgggaat | gttctccac | catccctacc | cctggaattc | ctctccaaag | 4800 |
| cagagtacgt | caagtttttc | ctgggtgtcag | acagcatttc | accatgaaac | cctaagacct | 4860 |
| gcctcctggg | ctccttcag | ctgggtgggc | tgggtgtgaag | gtgggcttcc | tgggcctctg | 4920 |
| gcagatggag | gatggcatta | aatgccaaca | cagtcagctt | accatccaca | aggccagcag | 4980 |
| ctgccaacag | ctgccttaga | cctatcaaca | agacaacttc | atgggtccca | atgggaatgg | 5040 |
| aggctgggcc | cgccctactt | agagcagggg | aaagaacttt | tccctcaaag | agccggggca | 5100 |
| ggatgcgaga | atctaactac | atcctctccc | ggtttgcagt | tctaggaagt | ggaatttgct | 5160 |
| gcctaggcg | tggctctaaag | gacaagttta | gaaatgattc | aactcaagtt | cctaaacaga | 5220 |
| gtaagtgcc | gttgatgtcc | caccgtggat | cctttactcc | agaaaaattg | taatgatggc | 5280 |
| tcggccaccg | ccttggctag | agtcccactg | cacgcgtgtc | gtgagggccg | atgggcaagt | 5340 |
| ccgtccggtt | ttttttgttg | ttgttgttgt | tttttgagat | ggagtctcgc | cctgttgccc | 5400 |
| agactgaagt | gcaaaggccc | gatctcaact | cactgcaacc | tccgcctcct | gggttcaaag | 5460 |
| gattctcctg | tctcagcctc | ctgagtagct | gggattacag | gcaccgcga | gcacgccag | 5520 |
| ctattttttt | gtatttttag | tagagacggg | gtttttcat | gttggccagg | ctggtctcga | 5580 |
| acgcctgacc | tcatgatcca | ccgccttgg | cctcccaaat | tgctgggatt | acaggcgtga | 5640 |
| gccaccgcgc | ccggccgtct | gtctggtttt | caaccaaatc | aatgaaccgc | taagcctctt | 5700 |
| tggatatatat | aacaatgaaa | aaattcatta | agccatgaaa | tctagaaata | agtcatatatt | 5760 |
| ctgagttgat | aaaatgcttt | tctgaacata | catttttaggt | atctggcaca | attaaccaa | 5820 |
| tgtctgccca | tttttgtgta | gctttcatac | agtacagatt | tcattgatgt | cgctcccaca | 5880 |
| tctgagtatt | aaaaacattt | gacattgttc | ttctcagttc | tcacaacacc | cctgtgaggt | 5940 |
| aggtggtatt | gaccccatte | cacagatggg | gaggtctagg | cacggaaaagg | tttagtggtc | 6000 |
| cctcacaggc | cgcgtgggtg | ggcagcagag | tgggtgctctg | gccccgcgcc | gacgccgcct | 6060 |
| tcacattcac | acttcttcag | tgccaccgca | acactgcatg | gcaggatctc | acgttgaggc | 6120 |
| caagttcctg | tctagttccag | aatgaagcca | gcgtctcacc | tcttaaagct | tcagtgtgtg | 6180 |
| actcaaagcc | aacttactct | cccaaacctg | caaaacaaac | atactgactg | aatcttagtt | 6240 |
| gggactatatt | gcagtattta | agattatatt | tgagagtcaa | tctgcttgga | tttgtagttg | 6300 |
| tatatgtctc | aatccctttg | gaaaacagtt | tgaaatgaca | tgagggacaa | tgtaattttg | 6360 |
| agaacagaa | acagaaaaca | agagttctga | gactggcatt | gaaattgaga | atataagcta | 6420 |
| tggtaaaatg | agaatcaaat | cccaaataaa | cggagagcag | cacttctcaa | tgtttaaggc | 6480 |
| cacgcacagg | gcaggcattc | agtaagcact | tcttggatca | aaagaaaactg | atgtctcctt | 6540 |
| gagccgccta | tcactgacaa | caggagctga | gacccccggg | aaagccagcc | agggccatga | 6600 |
| tccccttggc | ctggggccac | ggtcacacaa | agccactcag | ccaaactcgtg | tagagttatc | 6660 |
| taggcttact | tgctgcagga | taaaagttga | actagaacac | caagcatatga | gctaggataa | 6720 |
| cccctttgaa | tgtgtactgc | tacttataaa | aaataggtat | gtagctatga | ttaaatagat | 6780 |
| gaagggccaa | agcatcctat | gaggaagtat | ttttaaaatt | gtatagatgt | tcatgcagtg | 6840 |
| ggggacagaa | ataaagaggt | taaagcggtc | tgtgtttttc | ggttaaataga | aaggttgtaa | 6900 |
| atgcattttt | accgctgata | agaaggggta | cctgctaccc | ctttctgctg | tggagtgttg | 6960 |
| ctgaggacag | agtccatctc | tcccagcgag | tcctggttat | cctttactta | cactctggcc | 7020 |
| tcgggggcag | tggcgtgtgg | cctcggtcct | ccccaggtaa | ctctggaggg | cgctgtggaa | 7080 |
| tattgctgtg | atttgccttc | tactcgtctt | tcacccatgt | tccgccttga | ttcggcataa | 7140 |
| ggacagactg | ctccagtggg | gccttgggtc | ctcaggcctt | ctgaccgctt | ggtcttgagt | 7200 |
| gacattccag | aagagtgact | aatgacataa | aacgattaag | aaaatccatg | tggcagcgcc | 7260 |
| caaccggaaa | cagttttgtc | ccaggctgca | cagggtcgga | ggccccaagg | tcaccggggc | 7320 |
| cactgcccgt | cacagggtcca | ccttgacccc | ctttatgaaa | ggcaggccccg | tgggcacccct | 7380 |
| cttcttatac | tccagggtact | cctctccaaa | aaagtgaatt | agtgagattt | cttcttcttc | 7440 |
| tgttcgatcg | cggaagaatc | gccacactgt | cagggcatag | ctgacgccgc | agatgggggt | 7500 |
| acacagcatc | acctaacaga | gggagacacc | aggctcatca | gggtgaccgt | gggatgacgc | 7560 |
| cctgtgcttt | ggtaggcgctc | tgtctctaat | accc | | | |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|-------|
| aggtgtgagc | tccccaacat | gaggtcccat | gcacgctgcc | ttcctgcccc | ggaccctccc | 7860 |
| accacaaaatg | cattcgctta | caccacagct | gcctggggcct | ctgcctccta | aaccacacagc | 7920 |
| ctctgcttca | gcacgagata | cagtgccaca | aaactcagct | tccgaaatgc | cccttccagc | 7980 |
| agattacctc | cacgctcaga | gagctccaga | gactgaaccc | cacccctga | gtctgggttt | 8040 |
| ccaaccccag | aagagcagca | cttcgcccac | ttccccagtc | tctgcccctc | cccacgctgt | 8100 |
| gcccactttg | cctctttttt | ttcccccgag | acagattgtc | actctgtcac | gtggagtgca | 8160 |
| gtggcgatgat | catggctcac | tgcagcctta | actgcttggg | ctcaagtgat | tctcccacct | 8220 |
| cagcctccca | agtagctggg | actaagggca | catgccacca | caccagcta | atTTTTgtat | 8280 |
| tttttgtaga | gatgggggtt | cacaatgttg | cccaagctgg | tctcgaactc | ctggcccttt | 8340 |
| cttccacctt | taagaacatc | ctggccaggt | acggtggctc | atgtctgtta | attgcagtac | 8400 |
| tttgggaggc | caaggagggc | agatcacctg | aggtcaggag | cttgagacaa | gcttggccaa | 8460 |
| catggcggaat | ccccgtctct | accaaaaaata | gaaaaattag | ctgggcgtag | tgggtgggagc | 8520 |
| ctgtaatccc | agctacttgg | gaggctgagg | caggagaatt | gcttgaaccc | aggaggcaga | 8580 |
| ggttgacagt | agctgagatc | gccactgcat | accagcctgg | gcgacagagc | gaaactccct | 8640 |
| ctcaaaaaaa | acaaagaaca | tccttcccac | tgatctccag | ccaaacagtc | cttcaaggcc | 8700 |
| aaaagcattc | cccagctcct | cagggaacca | ctcacctaca | cctgcccact | ggtccccctgt | 8760 |
| ggatgtgcat | cttccccaac | atacattttc | tgtatgtttt | ctgaatatat | atTTtaggct | 8820 |
| ccaatacagc | cacccggaga | gccaggctca | tgtcctgacc | tctcacacct | tctcttattg | 8880 |
| agcacttact | atgttcccag | cgccatgcta | agccctttac | aatcattacc | ctgttcaact | 8940 |
| ctcatggcaa | acctttgagg | gcacgctact | atccccactt | tgTTTTTTTT | aaaattttat | 9000 |
| tatttttttaa | agacaggggtc | tcactatat | gcccaggctg | gacttgaact | cttggcctca | 9060 |
| agccatcctc | ctgcctcagc | ttccagagta | gggggaacta | caggcatgtg | ccactatgtc | 9120 |
| tagctgcccc | cactttaaca | tgagaggaga | aggaggccaa | gcagtgaatg | tcagaatcag | 9180 |
| gactggccca | gtcagtgact | ccggggcctg | taccctcaca | tctggcatag | cttgctgggg | 9240 |
| ataccctaca | gtgggagttc | tctatagcag | gctgcagcct | gttactaagc | catgaaatca | 9300 |
| tttagtacat | tatgaacagt | attgaaataa | taagatagaa | aacaggattt | tgtaaacagt | 9360 |
| aagtgtaaat | attatatcag | gaaagacatg | ttcctttcat | acacacacaa | gtgctggagc | 9420 |
| acaatgtaaa | aaaaatctat | gggcaaaaaag | gtatggaaaaa | cccttttggt | ctagtgcaca | 9480 |
| cacatatata | ggaagcaagc | atttatggca | aattacatta | ttcagtcata | actaatttgt | 9540 |
| tcccagggaa | ggtgattgtt | aatgtggcgg | ttttacatgt | ttcagaaaca | aaaattgtaa | 9600 |
| atgctatgtg | atcatttgcc | ccacctatac | cgttaggggg | caccagagtc | accaaggacc | 9660 |
| atgcattgct | gatgggatgc | ctgagagatc | tctggatttg | cccaaagact | tggagacttt | 9720 |
| tcccaaacac | ttcgtgaatt | ttccaagatc | tattcacatt | ctttggccaa | gttttttctag | 9780 |
| gaccaagagt | aaagaatcaa | gaaacagttt | caagaaataa | ggcggccagg | cgcgatggct | 9840 |
| cacgcctgta | atcccagcac | tttgggagac | tgaggcaagt | ggatcatgag | gtcaggagat | 9900 |
| tgagatcatc | ctggctaaca | cagtgaiaacc | ccgtctctac | taaaaataca | aaaaatttag | 9960 |
| ccaggcatgg | tggcgggcgc | ctgtagtccc | agctactcag | gaggctgagg | caggagaatg | 10020 |
| gcgtgaaccc | aggaggcgga | gcttgcagtg | agccgagatt | gcgccactgc | actccagcct | 10080 |
| gggcgacaga | gcgagactct | gtctcaaaaa | gaaaaaa | | | 10117 |

<210> 12395
 <211> 7507
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12395 | | | | | | |
| gaagccagga | gtccttttaga | agtctatgat | tcccatcacc | gcggggctgg | acagctctct | 60 |
| tggggacctt | ccctgtgcac | ctgtgaccgt | gtctgcccct | cataacaccc | tagtcacaat | 120 |
| gccctttcag | ttccccaaaa | aagctagact | ggtcccactt | ctgggcctct | gcttgagta | 180 |
| ttcacagacc | ctcagtcggg | ccccagcttg | gatgagtgtc | agcagaggcc | ctccccactc | 240 |
| cacctggatt | aaagcaggtc | tgcctggcgc | cctgcaccac | acacccttcc | ctccctcagc | 300 |
| gtgtctggcc | cgaccagcac | gcagcttcca | tgatggcagg | gcctggcctc | tctgacgc | 360 |
| catgcaggcc | tggcccttgc | caaccacttg | accttagtaa | atatttgagg | agcaaaagaa | 420 |
| tgaacgcta | ggtgggtgca | tgagtgggtg | cagagtctgg | ttctgaggtt | tctgagctta | 480 |
| aggccgtgca | gcagctggct | ctgctccctt | tgcccactcc | cttgccaggt | | 540 |
| ttcaggcacc | cgtggatgag | cagtcagaga | gtctacagaa | cacgcacgac | gacagcagga | 600 |
| acagcgcggc | ctcagccagg | taaagcaagt | ctctccactg | gagagtgtgc | acgcgatgtg | 660 |
| gcttctgagg | ccaacaggac | gacaaaggaa | actccaggct | tttccccctt | ggcgccagct | 720 |
| ctggggccct | ggctgggcct | ctttgtaaaa | caagggttca | gagaggctct | cagcccagat | 780 |
| gagtaactta | taagtgcact | catagataaa | acagggtgtc | ctttgataga | cagaacccca | 840 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ttttaccatt | ataaacagcc | atggctgctg | cctgcatcca | ctttcaccac | tgggagctgc | 900 |
| acgtgcttat | gctaggggac | tcgggtcact | gaaatgagaa | agtgaccgag | gactgttccc | 960 |
| cagagccagc | gcatgcgccc | cagtacctgc | cagaggaaga | cggctgtgca | ttaacaccta | 1020 |
| cgacacagtc | acaggctgat | ctttgtgtat | tttgctttca | ggaaaacata | gtcacagggc | 1080 |
| agaggacagc | actgtagaat | gagaaccaga | agagcctagg | gggtgtgcaga | gggttgctga | 1140 |
| agtggccaga | gtcacagcgc | ggctgggtgac | agagcagagt | ctggccccag | cctcccctgc | 1200 |
| acagccgcca | tttattagct | cagatgcttc | caaattcaaa | atgcagtgtc | accagaaacc | 1260 |
| gctgacacag | gctgatggtt | cagcaactca | cagccatccc | ctggggatgg | gctcctactc | 1320 |
| agaagtagac | aaggtccttt | tggagacaga | gccttcctgg | ttctcactca | ctgaggcctt | 1380 |
| ccaggaagac | gttccattct | gagtgccttg | gcccagtggt | attttagtgc | agggatatgg | 1440 |
| tgaaatgggg | gagcgggctg | ggcttacatg | aggctgtccc | tttaggaata | atccaggaag | 1500 |
| tgtcccggaa | aagagagaga | agacatcaga | gcctaaagga | aacagctggg | ctccgaacgc | 1560 |
| cctctcagaa | gagcctctac | tgaataatat | ggatcatcac | agatccaaac | agaaaaatgg | 1620 |
| gggcgatgtc | cccacatgga | gggaacaccc | gacttagcaa | atgggaccgg | tccccagggt | 1680 |
| caggctctta | gagcaggcac | aagactggga | cactggacag | aagggtgttc | ccatgatggt | 1740 |
| tttttttatt | ttttattttt | gagatggagt | ttcgctctgt | tgcccagggt | ggagtgtaat | 1800 |
| ggtgcaatct | cggctcactg | caacctctgc | ctcctgggtt | caagcgattc | tcctgcctca | 1860 |
| gcctcccag | tagctgggat | tacaggcgcc | tgacaccacg | ccccgcta | tttttgtatt | 1920 |
| tttagtagag | atggggtttc | accatgttgg | ccaggctggt | ctcaaagcgc | agacctcagg | 1980 |
| tgatccacct | gcctcagcct | cccaaagtgc | tgagattaca | ggggtgagtc | accgcgcctg | 2040 |
| gccaatgttg | ttgttggttt | taagacagaa | tttactcttt | tggtgcccag | gctggagtg | 2100 |
| aatggcgcaa | tctctggctc | accgcaacct | ccgcctccca | ggttcaagcg | attctcctac | 2160 |
| ctcagccccc | agagtagctg | ggattacagg | catgtaccat | cacaccgggc | taattttttg | 2220 |
| tattttaagt | agagaggggg | tttctccatg | ttggtcaggc | tggcctcgaa | ctcccaacct | 2280 |
| caggtgatcc | gcccacctcg | gcctcccaaa | atgctgggat | tacaggggta | agccactgtg | 2340 |
| cccggccggt | tatttcttta | aaaggtaatc | atttgtcaag | agtaaaaccc | agaagctctg | 2400 |
| acaggccata | atttcagatc | ctttggcttg | ggcagttttg | attttccccg | tgtttgcatg | 2460 |
| gcatgaagtc | ttcgtccttg | tcacagtagc | ttgggatgac | tcccagtgca | catggaaaac | 2520 |
| atcagggagt | gacaatccag | caagaaatcc | ctcgctagtt | ccacacctac | gcaccgagcg | 2580 |
| tcgggtgtgc | aggccctgtg | ctgggacagag | tgtggtatgt | cagggtgtgc | cggttttagg | 2640 |
| taacaagact | ccaccactga | gtggcacctg | ccctattgca | aaggaatcca | gttcctcggg | 2700 |
| aataacagtc | ccactgttaa | cctgggtgcta | ctgggaagtt | ccacacagta | atctgagcag | 2760 |
| tgactcatgg | aaggatgagg | aacgtttgct | ccagctttctc | tccctttcca | gcaagggcag | 2820 |
| agctcctaaa | gccaggggtt | agcacctggc | cagcttatgt | ggcagatggt | ctcagttaca | 2880 |
| acttcgctgc | tttcccaaac | tcctgcagcc | ctcctgagtc | cgacttccgt | tgatagcaag | 2940 |
| gcactgggtg | gcagcaacct | tttttctagt | agttttttcc | cagcagtttt | ccatttctcc | 3000 |
| acagtatcct | tttcatgttg | aggagcttaa | taaatgcttt | ttaaaaagta | acccacgtga | 3060 |
| cgtaaaattt | tacaagtttt | tgtggcaaaa | tgatgcccag | atagtcacat | ttaagcaaat | 3120 |
| attcagcttg | attcagtgat | taacagcaaa | tgggtctacg | tgctaacatg | gcagcacatt | 3180 |
| caacacataa | cacatcactc | acattgacgt | ccactgtccc | tgcacctgct | acttcagggg | 3240 |
| cactgagggt | cctgtttccaa | ggccttacaa | acctatgtgg | tggcctgcag | ggcaaaaagg | 3300 |
| attatcatta | caactgggta | gaggtaggaa | ttcagaaaga | aattgaggag | gccaaacaca | 3360 |
| cgctggttga | ggctaaaggc | ttaagacgct | tcttacccaa | gagtgcctc | agagtttcac | 3420 |
| atcccagaca | atcacactgt | gggttgagtga | aatcaagtgc | agtttttatt | aagaactgga | 3480 |
| aagaataatc | agtatctgtg | aaagaaaatc | caatttagaa | tatttaaata | aacattttatg | 3540 |
| taaaaagaag | agtagaataa | ttactccgtt | cagttcctct | ccttgcaatg | ggataggctg | 3600 |
| cctctgctgc | agatggctgg | gtcttccaaa | cccatgacaa | gtgccacggc | ctctgcagca | 3660 |
| gtggcccaga | gagtaggcac | ttcccagcat | gacagagagg | ccgaggcctt | ctaaccttgc | 3720 |
| caaaccacta | caaaagcaaa | ctagggtggg | caagcccaac | tacctaaagg | aggaagaaaag | 3780 |
| tgcaagtgaag | ggacagtggg | gtgctgtgcg | tatcgtgggg | gtactcctaa | gcagctagct | 3840 |
| gttgccgaga | tcttacaaag | cctgatcggc | taacgcagct | tcctgggtta | ggaacatttt | 3900 |
| ccccggtcgt | atcaatcccc | caggttggtg | aatgaacaga | agggatgaat | aaagcctact | 3960 |
| tttaggctc | aaggagcagc | tcgtgaaggg | gtggcagggt | cgctgctgcc | ttgttttctg | 4020 |
| tctgtctaag | aggctcacc | cgcgacctct | tctgtaaact | gccactcagc | agcggcctgc | 4080 |
| aagccctcac | gaaaggcttc | actctatgct | gtttccaggt | agctttgttc | tgacagtacc | 4140 |
| tattttccac | ttcagaatct | ccacttttaa | acctgcaatg | gaaaaataaa | tctcttgaca | 4200 |
| gttttttaaa | tcgagaaaat | tgggtgatgtg | gccttggcag | caaataccca | gaaagccttt | 4260 |
| acctcattaa | cctgattctc | cacgggccct | gccactgcta | aattttataaa | gctaaaaata | 4320 |
| atctcaagat | catggaacta | aaaagaagtc | aatcacttac | caaatacctgt | ccttaaggag | 4380 |
| ttcatcttgg | ctgggcgtgg | tggctcacgc | ctgtaatccc | agcactttgg | gaggccgagg | 4440 |
| gcgctggatc | acttgaggtc | aggagttcga | gaccagcctg | gccatcatgg | tgaaaccccc | 4500 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tctctactaa | aaatacaaaa | aaattagctg | ggcatggtgg | cccaagcctg | taatcccagc | 4560 |
| tactcaggag | gctgaggcag | gagaatcgct | tgaacccggg | aggcagaggt | tgcggtgagc | 4620 |
| cgaaatgggtg | ccactgcact | ccagcctcca | gcctggggcca | cagagcaaga | ctgtcttaag | 4680 |
| aaaataaaaa | aaatggagtt | catcttttat | ccctaagtaa | ttgctgactt | ctgctctggg | 4740 |
| attataaaca | gggtgggaat | gttctccac | catccctacc | cctggaattc | ctctccaaag | 4800 |
| cagagtacgt | caagttttcc | ctggtgtcag | acagcatttc | accatgaaac | cctaagacct | 4860 |
| gcctcctggg | ctccttccag | ctggtgggcc | tgggtgtgaag | gtgggcttcc | tgggcctctg | 4920 |
| gcagatggag | gatggcatta | aatgccaaca | cagtcagctt | accatccaca | aggccagcag | 4980 |
| ctgccaacag | ctgccctaga | cctatcaaca | agacaacttc | atggctccca | atgggaatgg | 5040 |
| aggctggggc | cgccttactt | agagcagggg | aaagaacttt | tccctcaaag | agccgggggca | 5100 |
| ggatgccaga | atctaactac | atcctctccc | ggtttgagg | tctaggaagt | ggaatttgct | 5160 |
| gccctaggcg | tgggtctaaag | gacaagttaa | gaaatgattc | aactcaagtt | cctaaacaga | 5220 |
| tgaagtggcca | gttgatgtcc | caccgtggat | cctttactcc | agaaaaattg | taatgatggc | 5280 |
| tggggccaccg | ccttggtcag | agtcccaactg | cacgcgtgtc | gtgaggggccg | atggggcaagt | 5340 |
| ccgtccgggtt | ttttttgtag | ttgttggtga | tttttgagat | ggagtctcgc | cctgttgccc | 5400 |
| agactgaagt | gcaaaggccc | gatctcaact | cactgcaacc | tccggctcct | gggttcaaag | 5460 |
| gattctactg | tctcagcctc | ctgagtagct | gggattacag | gcacccgcca | gcacgcccag | 5520 |
| ctatTTTTTT | gtatTTTTTg | tagagacggg | gttttatcat | gttggccagg | ctggtctcga | 5580 |
| acgcttgacc | tcatgatcca | cccgccttgg | cctcccaa | tgctgggatt | acaggcgtga | 5640 |
| gccaccgcgc | ccggccgtct | gtctgggttt | caaaccaatc | aatgaaccgc | taagcctctt | 5700 |
| tggatatatat | aacaatgaaa | aaattcatta | agccatgaat | ctagaaataa | gtcataattc | 5760 |
| tgagttgata | aaatgctttt | ctgaacatac | atttttaggta | tctggcacaa | ttaaccaaat | 5820 |
| gtctgccccat | ttttgtgtag | ctttcataca | gtacagattt | cattgatgtc | gctcccacat | 5880 |
| ctgagtatta | aaaacatttg | acattgttct | tctcagtcct | cacaacaccc | ctgtgaggta | 5940 |
| ggtgggtattg | accccatctc | acagatgggg | aggcttaggc | acggaaaggt | ttagtggctc | 6000 |
| ctcacaggcc | gcgtgggtgg | gcagcagagt | ggtgctctgg | ccccgcgccg | acgccgcctt | 6060 |
| cacattcaca | cttcttcagt | gccaccgcaa | cactgcatgg | caggatctca | cgctgaggcc | 6120 |
| aagttcctgt | ctagtccaga | atgaagccag | cgtctcacct | cttaaagctt | cgatgtgtga | 6180 |
| ctcaaagcca | acttactctc | ccaaacttgc | aaaacaaaca | tactgactga | atcttagttg | 6240 |
| ggactatttg | cagtatttaa | gattatTTTT | gagagtcaat | ctgcttggtg | ttgtagttgt | 6300 |
| atatgctcaa | atcccttttg | aaaacagttt | gaaatgacat | gagggacaat | gtaattttga | 6360 |
| gaacagaaca | cagaaaaaca | gagttctgag | actggcattg | aaattgagaa | tataagctat | 6420 |
| ggtaaaatga | gaatcaaata | ccaaataaac | ggagagcagc | acttctcaat | gtttaaggcc | 6480 |
| acgcacaggg | caggcattca | gtaagcactt | cttgatcaa | aagaaactga | tgctcctttg | 6540 |
| agccgcctat | cactgacaac | aggagctgag | accccgggga | aagccagcca | gggcccagat | 6600 |
| ccccttggcc | tggggccacg | gtcacacaaa | gccactcagc | caaatcgtgt | agagttatct | 6660 |
| aggcttactt | gctgcaggat | aaaagttgaa | ctagaacacc | aagcattgag | ctaggaatac | 6720 |
| ccctttgaat | gtgtactgct | acttataaaa | aataggtatg | tagctatgat | taaatacatg | 6780 |
| aagggccaaa | gcatacctatg | aggaagtatt | tttaaaattg | tatagatggt | catgcagtgg | 6840 |
| gggacagaaa | taaagaggtt | aaagcgggtc | gtgtttttcg | gtaaaactgaa | aggttgtaaa | 6900 |
| tgcatttttta | ccgctgataa | gaaggggtac | ctgctaacc | tttctgctgg | tggagtgttg | 6960 |
| ctgaggacag | agtcacatctc | tcccagcgag | tcctgggtat | cctttactta | cactctggcc | 7020 |
| tggggggcag | tggcggtgtg | cctcggtcct | cccaggttaa | ctctggaggg | cgctgtggaa | 7080 |
| tattgctgtg | atttgccctt | tactcgtctt | tcacccatgt | tccgccttga | ttcggcataa | 7140 |
| ggacagactg | ctccagtggg | gccttgggtc | ctcaggcctt | ctgaccgctt | ggtcttgagt | 7200 |
| gacattccag | aagagtgact | aatgacataa | aacgattaag | aaaatccatg | tggcagcggc | 7260 |
| caaccggaaa | cagttttgtc | ccaggctgca | cagggtcgga | ggccccaagg | tcaccggggc | 7320 |
| cactgcccgt | cacaggtcca | ccttgacccc | ctttatgaaa | ggcaggcccc | tgggcaccct | 7380 |
| cttcttatac | tccaggtact | cctctccaaa | aaagtgaatt | agtgaattt | ctctatcttc | 7440 |
| tgttcgatcg | cggaagaatc | gccacactgt | caggggatag | ctgacgccgc | agatgggggt | 7500 |
| acacagc | | | | | | 7507 |

<210> 12396

<211> 150

<212> DNA

<213> Homo sapiens

<400> 12396

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tggtttcttt | ttcttttttt | tttttgagat | ggagtctcgc | tctgtcgccc | aggctggagt | 60 |
| acggtggcgc | gatctcggct | cactgcaagc | tccgcctccc | gggttcacgc | cattctcctg | 120 |

cctcagcctc ccaagtagct gggactacag

150

<210> 12397

<211> 428

<212> DNA

<213> Homo sapiens

<400> 12397

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| ggctcaatca | atcctccac | ctcagcctcc | tgggtagctg | tgactacagg | catgtgccac | 60 |
| catgcccggc | taatttttat | agttttggta | gagatggggg | tgtgctatgt | tgccaaagat | 120 |
| ggtctccaac | tcctgggcta | agtgatcctc | ccacctcagc | cttccaaaat | gctgggatta | 180 |
| tagacgtgac | cgtgcctagc | catgttagtc | ttcagtagac | cttctctttg | ctgacagccc | 240 |
| cgcgctccca | tgctcctgcc | agcctctcca | gccgttcctt | cctgggtctct | ggctgggtct | 300 |
| gcctcctcag | ctcagtgcgc | agatatgttt | ttccccagg | ctcagcctta | ggcattctcc | 360 |
| acagcctacg | ctcactcctt | gggcgcacct | attcagtccc | tggtcttaag | accccatcat | 420 |
| gacgcaga | | | | | | 428 |

<210> 12398

<211> 428

<212> DNA

<213> Homo sapiens

<400> 12398

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| ggctcaatca | atcctccac | ctcagcctcc | tgggtagctg | tgactacagg | catgtgccac | 60 |
| catgcccggc | taatttttat | agttttggta | gagatggggg | tgtgctatgt | tgccaaagat | 120 |
| ggtctccaac | tcctgggcta | agtgatcctc | ccacctcagc | cttccaaaat | gctgggatta | 180 |
| tagacgtgac | cgtgcctagc | catgttagtc | ttcagtagac | cttctctttg | ctgacagccc | 240 |
| cgcgctccca | tgctcctgcc | agcctctcca | gccgttcctt | cctgggtctct | ggctgggtct | 300 |
| gcctcctcag | ctcagtgcgc | agatatgttt | ttccccagg | ctcagcctta | ggcattctcc | 360 |
| acagcctacg | ctcactcctt | gggcgcacct | attcagtccc | tggtcttaag | accccatcat | 420 |
| gacgcaga | | | | | | 428 |

<210> 12399

<211> 1765

<212> DNA

<213> Homo sapiens

<400> 12399

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| gggattcggc | ggcggcggcg | gcgcggggcg | gcgcttccta | gtgacgcagg | cggcggggcg | 60 |
| gcgcacgcac | ggggctggga | gggccggaca | cttatttggc | gctcgcggag | gaggaaggcg | 120 |
| gggcccgtgaa | ataaggcccg | acgggccccg | gggcgcgtgc | gcggaccgac | actgtcagct | 180 |
| cctaaccgccg | caggttcctc | ctggtccccg | aggcccccg | tcgggcgttg | cctgccccgc | 240 |
| gcgggcggcc | gggccgagg | acgatggtca | gtggacggac | ggcgcagg | agcagtgcgc | 300 |
| acgcgcggca | gggcgggtacc | ttcaggcctc | caggtacggg | cgctcctcgc | ccggacgctg | 360 |
| ctgtgtgtga | atgggcgcga | ggggactccc | ctgcggggcg | gacgcctgaa | cacgaggctg | 420 |
| tggaggagga | cgctgtagg | tgccgcggact | cacgcgggaac | atgccagagg | ctcagccagc | 480 |
| cacggcgctc | ccagcgtgga | gggcgagggg | catccgggag | cggccgggag | ggctcgggtca | 540 |
| cccctcaagc | tgtaacccca | gtcccacaac | cagcaccctg | atcctatcgc | agtcccacag | 600 |
| ccgacacccc | gatccacccc | ctgcccacaa | gccggcaccc | accccaatcc | catagctaac | 660 |
| accccggtcc | caccgctgtc | ccacggcccg | caccccgatc | ccacccagct | cccgcagctg | 720 |
| gcaccccgat | cccaccccag | cccaacagct | ggcacccacc | ccgatccccc | cgctgtccca | 780 |
| cagccggcac | cccgatccca | ccccagtcct | gcagccggca | ccccgatccc | acagccggca | 840 |
| ctcacccccga | tcgcatagca | tagctgatac | cccgatccca | ccccagtcct | atagccagca | 900 |
| ccccgatccc | acccagatcc | catagccagc | acctcgatcc | catagatgac | acccgatccc | 960 |
| cggcccgatc | ctatagcccg | caccccgatc | ccacccgagt | ccgcagcccg | gcaccccatc | 1020 |
| ccacccatgt | cccacagtcg | gcaccccgat | cccactcgga | tcgggcagcc | agcttggtac | 1080 |
| ctgtggccct | cctccagccc | ccagggtcca | tttatatgtt | ttattggcag | aggctggggc | 1140 |
| tggtctctgt | ggcctctgtg | ctgggtttct | tcctctgcac | cgcaggactg | gctctcctga | 1200 |

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|------|
| cctctccagg | tgtcatcgaa | cacccttgtg | cttgcgtgtca | cccgtgcct | gtctgcagga | 1260 |
| tcccggattc | cgatcacggg | gaccgaaatt | agtcggaaaa | taggaagcag | gtgctcgctt | 1320 |
| ggatggaacc | ctgaccctgt | gctcacactt | gtaggaggag | ggctctgcag | gccgcctccc | 1380 |
| ggaacgggag | gttcccaagc | cactgcactt | cggaggggct | gtaattagag | ttgcacattc | 1440 |
| attcagttcc | cagtaaagta | gaacgtgctc | cagccagtga | ggaaaagggt | tttttaaaaa | 1500 |
| ttagattggc | cgagtgcggt | ggctcatgcc | ttttacctca | acactttggg | agacaaagggt | 1560 |
| gggaggatca | cctgtggcca | ggagttcaag | accagcctgg | gcaacagagc | ctgtctctgg | 1620 |
| ggaagaataa | aaaaaaaaat | tgagcctttg | tcagtgtctac | tattttatta | tctgggtaaat | 1680 |
| atgagagggt | tcacgcggtc | tatgtgtgtc | atttatctga | gtttgcctat | cgtcacgttt | 1740 |
| tggaataaaa | tgtcaataaa | gtcga | | | | 1765 |

<210> 12400

<211> 5135

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (5110)

<223> n equals a,t,g, or c

<400> 12400

| | | | | | | |
|--------------|-------------|-------------|-------------|-------------|-------------|------|
| gagaccatcc | tggctaacac | tgtgaaaccc | cctctctact | aaaaatacaa | aaaattagcc | 60 |
| tggcgtgggtg | gcaggcgcc | gtagtcccag | ctactcgga | ggctgaggca | ggagaatggc | 120 |
| gtgaacccag | gaagcggagc | ttgcagtgtg | ccgagatggc | gccactgcac | tccagcctag | 180 |
| gcaacagagc | aagactccgt | ctcaaaaaat | aaataaataa | aactgcaa | gtattctcta | 240 |
| actgttctgt | aggtcggaag | tccagcccag | cctcactccg | ccaaaatcag | ggtgtctgca | 300 |
| gggcccagattg | cttttggagc | tccagggggag | aagctgttct | ggcctttcca | gtttctggaa | 360 |
| gcacttgagc | cccttgtctc | gtggcctatc | ccacacctga | aagccagcca | aagccagttg | 420 |
| agtcctcacc | ctgttggccc | cgacactgat | ctcctgcctc | cctcatctgc | tgtcaaggcc | 480 |
| ccctgtgtatg | acatggggcc | accagctggc | ccagggcacc | tcctgtcaga | gtccgccgac | 540 |
| cagtgcacctt | cattccatct | gtcgtgtgtg | ttcccctttg | cttggaacca | acgttcacag | 600 |
| atcccagggg | ttaggatgtg | aatatcttgg | gcagggtgtg | gggggggcta | ttcttccttc | 660 |
| taaaatattt | atcatttttg | ttttggggat | ttttttggtt | tggttttttt | tgagacagag | 720 |
| tctcgctctg | tgcgccaggt | tggagtgcaa | tgggtgcaatc | tcagctcact | gcaacctctg | 780 |
| cctccgggca | gacgtgagcc | actgcaccag | gcctgttttt | gtttttgttt | gtttttgttt | 840 |
| gttttttgaga | tggagtctcg | gccggggcg | gtggctcacg | cctgtaatcc | cagcactttg | 900 |
| ggaggccgag | gcggggcgat | cacgaggtca | ggagatcgag | accatcctgg | ctaaccagggt | 960 |
| gaaaccccgt | ctctactaaa | aatacaaaaa | attagccggg | cgtaggtagcg | ggcgccgtgta | 1020 |
| gtcccagcta | ctcgggaggc | tgaggcagga | gaatggcgtg | aacccgggag | gcggagcttg | 1080 |
| cagtgcagccg | agatcgcgcc | actgcactcc | agcctggg | acagagcgag | actccgtctc | 1140 |
| aaaaaaaaaa | aaaaaaaaaa | aaaagagatg | gagctcact | ttgtcaccca | ggctggagtg | 1200 |
| tagtgccggg | attataggta | cgcgccatca | tgcccagtta | ctttttgtat | tttttagtaga | 1260 |
| gacagggttt | taccatgttg | gtcagactgg | tctcaaactc | ctgatctcag | gtaatccacc | 1320 |
| cgcctcagcc | tcccaaagt | ctgggattac | agacgtgagc | caccgtgtct | ggccatattt | 1380 |
| attaactaca | aagggaaaga | tgataatttt | tttttttgag | atggagtctc | actctgtcac | 1440 |
| ccaggctgga | gtacaatagc | gtgatcttgg | ctcactgaaa | cctctgcctc | ccaggttcaa | 1500 |
| gcgattctcc | tgcctcagcc | tcccaactag | ctgggattac | aggcgcacgc | taccaagccc | 1560 |
| agctaatttt | tgtattttta | gtagaaacgg | agtttcacca | tgttgggtgag | gctgggtctcg | 1620 |
| aactcctgac | cttgtgatct | gcccacctcg | gcctcccaaa | gtgctgggat | tataggcatg | 1680 |
| agccactgca | accggctgaa | agatggtaat | tttaaagtag | agaaactggg | ttggctgggc | 1740 |
| atggtggcct | atgcctgtaa | gctcagcact | ttggaagtcc | aaggcaagag | gatcgcttga | 1800 |
| gtccaggagt | ttgagaccag | cctggacaat | atagcaagac | cccatctccg | caaaagctaa | 1860 |
| aaagttagcc | aggtgtggcg | gcacatgcct | gtagtcccag | ctactcagga | ggctgacgtg | 1920 |
| ggaggatcac | ttgagaccag | gaggtcaagg | ctgaagtgtg | ctgttattgt | gccactgcac | 1980 |
| tcagcctggg | caacagagcg | agagtctgtc | tccaaaaggta | aaaaaagggtc | caggcacagt | 2040 |
| ggctcacacc | tgtaatctca | gcactttggg | aggccgaggc | gggcagattc | gttgaggtca | 2100 |
| ggagttcaaa | acgagcctgg | ctaaatgggtg | aaaccccgctc | tctactaaaa | atacaaaaaa | 2160 |
| attagccagg | catggtgtacg | ggcgccgtgta | atctcagcta | cttgggagac | tgaggcagga | 2220 |
| gaatcatgta | aaccaggag | gctgaggttg | cagcgagcca | agatcatgcc | actgcacttc | 2280 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agcctggg | acagagcaag | actgtctcaa | aacaaaacaa | aagaatcttg | agtcctgagt | 2340 |
| tcctctaagg | gaaattccag | gcacctcgcc | acccttgaca | ggcaaaggaa | caatctgatg | 2400 |
| aggaagaaga | tagaaacagc | ttaaacaata | gtctcccggc | cgggggcagt | ggctcacgcc | 2460 |
| tgtaatctga | gcactttggg | aggccgaggg | gggtggatca | caagggtcaag | agatcaagac | 2520 |
| catcctggct | aacatgggtga | aaccccgctct | ctactaaaaa | tacaaaaaat | tagccggg | 2580 |
| tggtgggtggg | tgctgttagt | cccagctact | cgggaggctg | aggcaggaga | atggcgtgaa | 2640 |
| cccaggaggc | ggagctttca | gtgagctgat | atcgcgccctc | tgactccag | cctggg | 2700 |
| agagcctcga | gactccatct | caaaaaaaaa | aaaaaattag | ctgggtgtgg | tggtcacac | 2760 |
| ctgtaatccc | agctacgtgg | caggctgagg | caggagaatc | gcttgaacct | gggaggcgga | 2820 |
| ggttgtaggg | agctgagatc | gcaccactgc | actccagcct | gggcaacaga | gcgagactct | 2880 |
| gtctcaaaga | aaaaaaaaaa | aaacaaaaaa | acaatagtct | ccaagtaag | tcagagtcac | 2940 |
| aagggtgttt | gattccctgt | ggaaactaaa | atataacagc | ttaacatatg | ttcttgagtt | 3000 |
| atttttcaga | aacttggaca | tccaccaggt | ggaaaatgct | gagctaggaa | cagtggttat | 3060 |
| aatttcagcc | ttttgagagg | ccaagggtgga | aggatcactt | gaggccagga | gttagagacc | 3120 |
| agcctggcca | acatgggtgaa | accccgctctc | tagtaaaaaat | acaaatatta | gctgggcatg | 3180 |
| gtgggtgcaac | ctgaaatccc | agctacttgg | gagacctagc | tgaggagatc | gcttgaacct | 3240 |
| ggtaggagga | gtttgcagtg | agctgaaatt | gtgccactgc | actctagcct | gggcaacaga | 3300 |
| gtgagactct | gtctcaaaaa | ataaataaat | aaaaagagaa | aaaagtgttg | cctgcaggcc | 3360 |
| gggcacagtg | gctcacgcct | gtaatcccaa | cactttggga | ggccgagatg | ggcagatcac | 3420 |
| ctgaggtcag | gagtgcaaga | acagcctggc | caacatgggtg | aaaccccatc | tctactaaaa | 3480 |
| atacaaaagt | tagctgggtg | tgtacatgta | gtctcagcta | cttgggaagc | tgaggcagga | 3540 |
| gaatctcttc | aaccgggggag | gtggagggttg | cgatgagctg | agatcacgcc | accacactcc | 3600 |
| atccagcctg | ggtgacagag | tgagactcca | tctcaaagca | aaaaaagaaa | cataggtggg | 3660 |
| acccttggtg | tgctccttagg | gcatgatggt | tgaggtatac | tgctggctct | gtcatgtaaa | 3720 |
| agaaaacgag | ccgactctgt | gtctactgga | gaaagcactg | catatatcag | ccacagtcaa | 3780 |
| tacctcgctt | ctgcagggac | ggtggctgcc | agagtgggag | gctttggtag | cacccatgtc | 3840 |
| gtggaatcac | aatgtttgtcg | atagctctgg | ggtcttgtac | aaaatgccag | atcctcccat | 3900 |
| ttggtttctt | tatgggaagg | atcgcagtac | tataatacat | gggcttgtgc | aagggatcat | 3960 |
| tatacccttt | tctctttttt | tgcttttctt | tgagacagag | tttactctc | gtcaccagg | 4020 |
| ctggagtgca | atggcgcgat | cttggtcac | tgcaacctcc | acctcctggg | ttcaagtgat | 4080 |
| tttcttggt | cagccttctg | agtagctggg | attacacatg | ccgccacca | ggcctgactt | 4140 |
| atttttgtat | ttttagtaga | gacagggttt | caccaagttg | gtcaggctgg | tcttgaactc | 4200 |
| ctgacctcag | gtgateccacc | cacctcggcc | tcccaaagtg | ttgggatttc | aggcataagc | 4260 |
| caccaggccc | agcctttctt | tcttttttaa | attaatcttt | gtttaaaaat | actctcattt | 4320 |
| tttatattaat | tgtagcactc | ctagatcccg | aaagcagata | cactcttggt | atgggtctga | 4380 |
| ttcttttcat | tgtttcacgc | cttagaggat | attgtccaat | actggataaa | agtttactca | 4440 |
| ggtctacttc | cactttaacg | gggatggctg | aatatctctt | ccacttggtc | gttcgtttat | 4500 |
| aatgaactga | caaacataca | aattttcttg | agttctgtga | gacattctag | taaatcatct | 4560 |
| aacctgaaga | gcaggttgtg | agaacccctg | atttagaaaag | cccagtggtc | ataaatataa | 4620 |
| gtggctctgg | actggctccc | ggggtctgaa | gtgtgggcag | tcggttagga | ttgagccctt | 4680 |
| gtaatttgta | ggatctgaca | caccctccag | gaaggcagtg | tcagaattta | cctgtattat | 4740 |
| attggacacc | cagttagcgg | ttggagaatt | ggttgctggt | atagaaaaat | accaaataatt | 4800 |
| ttatgtcagg | ggagtgaag | aaaaaacaaa | aaccgcggcg | ggcgcggtgg | ctcacgcctg | 4860 |
| tcatcccagc | actttgggag | gccgagacgg | gcggatcacg | aggtcaggag | atcgagacca | 4920 |
| tcctggctaa | cacggtgaaa | ccccatctct | actaaaaata | caaaaattag | ccgggcgtgg | 4980 |
| tggcgcgcgc | ctgtagtccc | agctactcgg | gaggctgagg | caggagaatg | gcgtgaaccc | 5040 |
| gggaggcgga | gcttgcaagt | agccagatc | gcgccaccgc | actccagcct | gggcgacaga | 5100 |
| gcgagataan | gtctcaaaaa | aaaaaaaaaa | aaaaa | | | 5135 |

<210> 12401
 <211> 1012
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (39)
 <223> n equals a,t,g, or c

<220>

<221> SITE
<222> (40)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (41)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (42)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (43)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (44)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (46)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (47)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (48)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (50)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (51)
<223> n equals a,t,g, or c

<220>
<221> SITE

0990003 091291
"02150" 0900560

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (65)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (66)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (67)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (68)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (69)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (70)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (71)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (72)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (73)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (74)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (75)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (76)
<223> n equals a,t,g, or c

09050083 091301
"03T60" 0800560

<220>
<221> SITE
<222> (77)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (78)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (79)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (80)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (81)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (82)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (83)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (84)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (85)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (86)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (87)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (88)
<223> n equals a,t,g, or c

0995003-091201
102150 " 2300560

<220>
<221> SITE
<222> (89)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (90)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (91)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (92)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (93)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (94)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (95)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (96)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (97)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (98)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (99)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (100)
<223> n equals a,t,g, or c

<220>

<221> SITE
<222> (101)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (102)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (103)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (104)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (105)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (106)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (107)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (108)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (109)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (111)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (112)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (113)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (114)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (115)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (116)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (117)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (118)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (119)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (120)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (121)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (122)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (123)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (124)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (125)


```

<220>
<221> SITE
<222> (138)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (139)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (140)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (141)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (142)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (143)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (144)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (145)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (146)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (147)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (148)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (149)
<223> n equals a,t,g, or c

```

<220>
 <221> SITE
 <222> (150)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (151)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (152)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (153)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (154)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (155)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (156)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (157)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (158)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (159)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (160)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (161)
 <223> n equals a,t,g, or c

<220>

09450033 094501

<221> SITE
<222> (162)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (163)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (164)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (165)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (166)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (167)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (168)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (169)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (170)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (171)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (172)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (173)
<223> n equals a,t,g, or c

<220>
<221> SITE

```

<222> (174)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (175)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (176)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (177)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (178)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (179)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (180)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (181)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (182)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (183)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (184)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (185)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (186)

```

09950063 091201
102750 23005660

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (187)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (188)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (189)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (190)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (191)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (192)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (193)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (194)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (195)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (196)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (197)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (198)
<223> n equals a,t,g, or c

0995003-091201

<220>
<221> SITE
<222> (211)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (212)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (213)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (214)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (215)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (216)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (217)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (218)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (219)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (220)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (221)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (222)
<223> n equals a,t,g, or c

<220>

```
<221> SITE
<222> (223)
<223> n equals a,t,g, or c
```

11268-11269-11270

<222> (235)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (236)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (237)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (238)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (239)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (240)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (241)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (242)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (243)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (244)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (245)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (246)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (247)

09950037 094704
"02760" 090960

<220>
<221> SITE
<222> (272)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (273)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (274)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (275)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (276)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (277)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (278)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (279)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (280)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (281)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (282)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (283)
<223> n equals a,t,g, or c

<220>

09950083-094204

<222> (296)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (297)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (298)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (299)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (300)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (301)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (302)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (303)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (304)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (305)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (306)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (307)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (308)

<220>
<221> SITE
<222> (321)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (322)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (323)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (324)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (325)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (326)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (327)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (328)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (329)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (330)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (331)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (332)
<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (333)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (334)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (335)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (336)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (337)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (338)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (339)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (340)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (341)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (342)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (343)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (344)
 <223> n equals a,t,g, or c

<220>

<221> SITE
<222> (345)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (346)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (347)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (348)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (349)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (350)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (351)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (352)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (353)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (354)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (355)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (356)
<223> n equals a,t,g, or c

<220>
<221> SITE

0050083-091201
T02160" 0800560

<222> (357)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (358)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (359)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (360)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (361)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (362)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (363)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (364)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (365)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (366)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (367)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (368)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (369)

095003 091201
"09T50" 000500

<220>
<221> SITE
<222> (382)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (383)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (384)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (385)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (386)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (387)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (388)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (389)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (390)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (391)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (392)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (393)
<223> n equals a,t,g, or c

0995003 09401
T0750" E30560

<220>
<221> SITE
<222> (394)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (395)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (396)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (397)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (398)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (399)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (400)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (401)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (402)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (403)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (404)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (405)
<223> n equals a,t,g, or c

<220>

09950083-091201
"02160" 0800560

<221> SITE
<222> (406)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (407)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (408)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (409)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (410)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (411)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (412)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (413)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (414)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (415)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (416)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (417)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (418)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (419)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (420)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (421)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (422)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (423)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (424)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (425)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (426)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (427)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (428)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (429)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (430)

09050083 091201
101501 03005660

<220>
<221> SITE
<222> (443)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (444)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (445)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (446)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (447)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (448)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (449)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (450)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (451)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (452)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (453)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (454)
<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (455)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (456)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (457)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (458)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (459)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (460)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (461)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (462)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (463)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (464)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (465)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (466)
 <223> n equals a,t,g, or c

<220>

0950087-0920

<222> (479)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (480)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (481)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (482)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (483)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (484)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (485)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (486)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (487)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (488)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (489)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (490)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (491)

<220>
<221> SITE
<222> (504)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (505)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (506)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (507)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (508)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (509)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (510)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (511)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (512)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (513)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (514)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (515)
<223> n equals a,t,g, or c

09050083 094204

<221> SITE
<222> (528)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (529)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (530)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (531)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (532)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (533)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (534)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (535)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (536)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (537)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (538)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (539)
<223> n equals a,t,g, or c

<220>
<221> SITE

0995006 09460
T.02160 03005650

<222> (540)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (541)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (542)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (543)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (544)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (545)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (546)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (547)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (548)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (549)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (550)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (551)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (552)

1.03450" E3005650

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (553)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (554)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (555)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (556)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (557)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (558)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (559)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (560)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (561)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (562)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (563)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (564)
<223> n equals a,t,g, or c

```

<220>
<221> SITE
<222> (565)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (566)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (567)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (568)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (569)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (570)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (571)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (572)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (573)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (574)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (575)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (576)
<223> n equals a,t,g, or c

```

<220>
 <221> SITE
 <222> (577)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (578)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (579)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (580)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (581)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (582)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (583)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (584)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (585)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (586)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (587)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (588)
 <223> n equals a,t,g, or c

<220>


```

<222> (601)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (602)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (603)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (604)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (605)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (606)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (607)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (608)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (609)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (610)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (611)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (612)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (613)

```


09950083 091201
"02160" 09005660

<221> SITE
<222> (650)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (651)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (652)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (653)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (654)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (655)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (656)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (657)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (658)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (659)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (660)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (661)
<223> n equals a,t,g, or c

<220>
<221> SITE


```

<220>
<221> SITE
<222> (687)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (688)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (689)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (690)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (691)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (692)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (693)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (694)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (695)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (696)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (697)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (698)
<223> n equals a,t,g, or c

```

0945008 0945008

<220>
<221> SITE
<222> (699)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (700)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (701)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (702)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (703)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (704)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (705)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (706)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (707)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (708)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (709)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (710)
<223> n equals a,t,g, or c

<220>

```

<221> SITE
<222> (711)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (712)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (713)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (714)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (715)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (716)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (717)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (718)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (719)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (720)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (721)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (722)
<223> n equals a,t,g, or c

<220>
<221> SITE

```

[illegible]

```
<220>
<221> SITE
<222> (725)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (727)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (729)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (731)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (733)
<223> n equals a,t,g, or c
```

<220>
<221> SITE
<222> (735)

09950083 091201
102750 0900560

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (736)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (737)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (738)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (739)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (740)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (741)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (742)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (743)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (744)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (745)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (746)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (747)
<223> n equals a,t,g, or c

09950000-091201

<220>
<221> SITE
<222> (748)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (749)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (750)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (751)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (752)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (753)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (754)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (755)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (756)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (757)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (758)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (759)
<223> n equals a,t,g, or c

09050083 091204
"02160" 08005660

<220>
<221> SITE
<222> (760)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (761)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (762)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (763)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (764)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (765)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (766)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (767)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (768)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (769)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (770)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (771)
<223> n equals a,t,g, or c

<220>

09950083 05421
102750 0309560

<221> SITE
<222> (772)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (773)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (774)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (775)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (776)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (777)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (778)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (779)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (780)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (781)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (782)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (783)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (784)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (785)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (786)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (787)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (788)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (789)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (790)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (791)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (792)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (793)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (794)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (795)
 <223> n equals a,t,g, or c

 <220>
 <221> SITE
 <222> (796)


```

<220>
<221> SITE
<222> (809)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (810)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (811)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (812)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (813)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (814)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (815)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (816)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (817)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (818)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (819)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (820)
<223> n equals a,t,g, or c

```

00950063 091204
"02T60" 03005660

<220>
<221> SITE
<222> (821)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (822)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (823)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (824)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (825)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (826)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (827)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (828)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (829)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (830)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (831)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (832)
<223> n equals a,t,g, or c

<220>

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|-----|
| aacattgggt | actcacggac | ataaagatgg | caacaataga | cactggggac | tattagaggg | 120 |
| ggaatggagg | gagggggcaa | gggctgaaaa | actacctatt | gggtactatg | ctcactacct | 180 |
| attgggtact | gtgctcacta | cctattgggt | actgtgctca | ctacctattg | ggtacttttg | 240 |
| tgacagcatc | atacaatata | ccaatgtaac | aagcctgaac | atgtatccct | taaatctaaa | 300 |
| ataaaagttg | aaattacttt | ttaacaaaag | aaaattccac | atatttatat | tgaaaccaag | 360 |
| ccaagctgtg | gtcttctgca | atgttataat | caccctgtaa | agtcaatata | caaaatatat | 420 |
| tgtattaatt | ttaacatttc | taggctattc | agggttaaatt | ttgtgttcca | aatctatctt | 480 |
| tcgtaatata | agattcatat | tattctgac | acttctggct | aaaccttaaa | aagaattccc | 540 |
| ctatcaatac | aaagaatatt | agttgggaaa | taatataat | ataataaata | ataataataa | 600 |
| tatataacat | aatttataaa | aattttaatg | gcaaacagtt | gtatctaata | aagattctga | 660 |
| atcctgggtc | gggtgctgtg | ctcacacctg | taatcccagc | actttggggag | gccaaggcgg | 720 |
| gcagatcact | tgagctcggg | agttagcgac | caagcctgac | caacaggaga | aaccagtcct | 780 |
| ctactgaaaa | tacaaaatta | gtcaggcgtg | gtagcacatg | cctataatcc | cagctactca | 840 |
| ggaggctgag | gcaggagaat | ggcttgaacc | cgggaggcag | aggttgcagt | gagccaagat | 900 |
| tgcattcattg | cactccagcc | tgggcaacaa | gagcgaaact | ccatctcaaa | aaaaaaaaaa | 960 |
| aaaaaaaaaa | gnt | | | | | 973 |

<210> 12403

<211> 970

<212> DNA

<213> Homo sapiens

<400> 12403

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|-----|
| agtgaattaa | tgtaggaaca | gaaaacgaaa | taccgcatgt | tctcttataa | gtgagagcta | 60 |
| aacattgggt | actcacggac | ataaagatgg | caacaataga | cactggggac | tattagaggg | 120 |
| ggaatggagg | gagggggcaa | gggctgaaaa | actacctatt | gggtactatg | ctcactacct | 180 |
| attgggtact | gtgctcacta | cctattgggt | actgtgctca | ctacctattg | ggtacttttg | 240 |
| tgacagcatc | atacaatata | ccaatgtaac | aagcctgaac | atgtatccct | taaatctaaa | 300 |
| ataaaagttg | aaattacttt | ttaacaaaag | aaaattccac | atatttatat | tgaaaccaag | 360 |
| ccaagctgtg | gtcttctgca | atgttataat | caccctgtaa | agtcaatata | caaaatatat | 420 |
| tgtattaatt | ttaacatttc | taggctattc | agggttaaatt | ttgtgttcca | aatctatctt | 480 |
| tcgtaatata | agattcatat | tattctgac | acttctggct | aaaccttaaa | aagaattccc | 540 |
| ctatcaatac | aaagaatatt | agttgggaaa | taatataat | ataataaata | ataataataa | 600 |
| tatataacat | aatttataaa | aattttaatg | gcaaacagtt | gtatctaata | aagattctga | 660 |
| atcctgggtc | gggtgctgtg | ctcacacctg | taatcccagc | actttggggag | gccaaggcgg | 720 |
| gcagatcact | tgagctcggg | agttagcgac | caagcctgac | caacaggaga | aaccagtcct | 780 |
| ctactgaaaa | tacaaaatta | gtcaggcgtg | gtagcacatg | cctataatcc | cagctactca | 840 |
| ggaggctgag | gcaggagaat | ggcttgaacc | cgggaggcag | aggttgcagt | gagccaagat | 900 |
| tgcattcattg | cactccagcc | tgggcaacaa | gagcgaaact | ccatctcaaa | aaaaaaaaaa | 960 |
| aaaaaaaaaa | | | | | | 970 |

<210> 12404

<211> 275

<212> DNA

<213> Homo sapiens

<400> 12404

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cacgcctgta | atcccagcac | tttgggaggg | cgaggagggt | ggatcaggaa | gtcaggagat | 60 |
| cgagaccatc | ctggctagca | cagtgaagcc | ccgttctcta | ctaaaaatac | aaaaaaagtt | 120 |
| agcagggcat | gggtggcggg | gcctgtagtc | ccagctactc | aggaggctga | ggcaggagaa | 180 |
| tggcgtgaac | ccaggaggcg | gagcttgcag | tgagccgaga | tcgcgccact | gcactacagc | 240 |
| ctggatgaca | gagcaagagt | ctgtctcaac | aacaa | | | 275 |

<210> 12405

<211> 361

<212> DNA

<213> Homo sapiens

<400> 12405

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| aaatagtcta | tttaaaaagt | taaaataaca | aaagaataaa | aattgacagt | ctttttgagg | 60 |
| ctatcagatc | agcaaagaaa | tttcccctca | gttttgagta | gccaggtagt | gggaaacaag | 120 |
| ctcatattct | attatttgaa | ttacaagtta | acatttttag | atgggtacttc | tacaaaaata | 180 |
| aaaacatgta | aatcccctga | ctcagcaatt | cccaatttgg | tattttatttc | tactgaaata | 240 |
| cttgtagaaa | atgtgctatg | gaaacgaaat | tattcaccac | agttctgttc | atatgtaata | 300 |
| gcaaataact | aaaatcctaa | atacccttaa | tatgagatat | agttaacaga | ctatagtgca | 360 |
| g | | | | | | 361 |

<210> 12406

<211> 368

<212> DNA

<213> Homo sapiens

<400> 12406

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| atcttcccta | cttgcacgtc | cgtttatagg | ctctctgcaa | gaagaaaaat | atggctgtat | 60 |
| tttggccgac | cctgcaggca | gtcagacctt | atgggtgtct | tcccttggtc | cctgaaaatc | 120 |
| gctgattttc | tggtcttttt | caaggtgcac | tgatttcgta | ttgttcaaac | acacatgttt | 180 |
| tataatcaat | ttgtacagtt | aacacaatta | tcacagtggg | cctgagatga | cgtacatcct | 240 |
| cagcttacga | agataacagg | attaagagat | taaagtaaga | caggcgtaag | aaattatgaa | 300 |
| agtattatct | gggaactggg | aaatgtccat | gaaatcttca | taatttatgt | tcctctgcca | 360 |
| tggtccca | | | | | | 368 |

<210> 12407

<211> 368

<212> DNA

<213> Homo sapiens

<400> 12407

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| atcttcccta | cttgcacgtc | cgtttatagg | ctctctgcaa | gaagaaaaat | atggctgtat | 60 |
| tttggccgac | cctgcaggca | gtcagacctt | atgggtgtct | tcccttggtc | cctgaaaatc | 120 |
| gctgattttc | tggtcttttt | caaggtgcac | tgatttcgta | ttgttcaaac | acacatgttt | 180 |
| tataatcaat | ttgtacagtt | aacacaatta | tcacagtggg | cctgagatga | cgtacatcct | 240 |
| cagcttacga | agataacagg | attaagagat | taaagtaaga | caggcgtaag | aaattatgaa | 300 |
| agtattatct | gggaactggg | aaatgtccat | gaaatcttca | taatttatgt | tcctctgcca | 360 |
| tggtccca | | | | | | 368 |

<210> 12408

<211> 4625

<212> DNA

<213> Homo sapiens

<400> 12408

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|-----|
| ccaggcgggc | caggggtcgc | tgtactccct | ggaggccacc | ctggaggagc | caccctgcaa | 60 |
| cgaccccatg | gtgtgcgggc | tccccgtgtc | aagaaaaccc | tggtgagtga | tgaggctctt | 120 |
| gggggtcccc | gccccgaggc | cgagtaaagc | agcagttgga | tgatgacggg | tcaggtaag | 180 |
| acgcagggat | ctgaggtagc | tgctgcccc | ccttgagcca | cttcccaggc | cccaggggct | 240 |
| ggaacccaag | atgctatgaa | ggggagggatg | ccccggtgca | ggccgtgcct | cactgtccac | 300 |
| tgtgatgggg | tgattgcctt | aggggtggct | ctcatctgag | gagcctccag | ctccatcttg | 360 |
| gccagatctt | gctccccaga | tccagatcca | ggcccccaga | gcagcttctt | cctctccctc | 420 |
| cagctctgca | gcttccaagt | cctggatgag | ctcgggaagac | acgtgctgct | gcggaaggac | 480 |
| tgtggcccag | tggaacacaa | gggtccagg | gctggggagc | ccaagtcagc | cttcactcag | 540 |
| ggctcagcca | tgatttcttc | tctgtcccaa | aaccatccag | acaacagaaa | cgagactttc | 600 |
| agctcagtca | tttccctggt | gaatgaggat | cccctgtccc | aggtgaggag | ccctcagctt | 660 |
| gaggagccct | cagcttgagg | agccagccgc | tgcctcatca | cccttctccc | ttccctctgg | 720 |
| agtgggtttc | tctggtcagc | ctaaagactg | gtctgcctat | ccaggacttg | cctgtgaaga | 780 |
| tggcttcaat | cttcaagaac | tttgtcatta | cctataaccg | gacatatgag | tcaaaggaag | 840 |
| gtgaggaccc | agccttggtt | gtacctgttc | ctatcagaac | aggactttcc | ccccacttg | 900 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gcaccttggg | gtgtggggagg | agaaagacaa | gaggcagtg | acctgttcaa | ggaccccata | 960 |
| attcctgagc | tctccctaag | ccttcccagc | ctggcagcca | ccctgagtag | ctggcccctt | 1020 |
| ctcctacctt | atcttcccgc | tcagaagcca | tgggtcttgg | ccgggcgtgg | tggctcacct | 1080 |
| ctgtaatcgc | agtacttttg | gaggccgagg | tgggcagatt | acctgaggtc | aggagttcaa | 1140 |
| gaccagcctg | gccaacatgg | tgaaccccca | tctctactaa | aaaaaaagta | caaaaattag | 1200 |
| ccaggtgtgg | tggcgcacac | ctgtatacca | gctactcggg | aggctgaggg | aggaaaatca | 1260 |
| cttgaacctg | ggaggcggag | gttgacagtg | gcaaagattg | tgccactgca | ctccagcatg | 1320 |
| ggtgacaagc | gaaaactctg | tctcaaaaaa | aaaaaaaaga | agctctgcat | ctccatcact | 1380 |
| ctggcagggg | ggaatggggc | agaaggctgg | atttttttgg | ctggagagtc | cttgacaaca | 1440 |
| tggccttttc | ccaccacctc | ttgtgggtgg | tgtccttttag | accccattha | ctgcttttgc | 1500 |
| acctgggaag | tcatacattc | agtttggccc | taaaagttag | tcagacctcc | cactccatca | 1560 |
| cttgcatgtc | tggccccccac | ccctacctgc | tccccgggga | aacccttgcc | tgctagcccc | 1620 |
| aattgccctt | ccttttatct | gcctgggggtc | gaacccttcc | tcttctgctc | cttggtcctc | 1680 |
| agaagcccg | tggcgctgtg | ccgtctttgt | caataacatg | gtgcgagcac | agaagatcca | 1740 |
| ggccctggac | cgtggcacag | ctcagtatgg | agtcaccaag | ttcagtgatc | tcacaggtag | 1800 |
| ggatagtggc | cacagtcctc | atggatccag | gaagagacag | gaccttgctc | gcaaggcctc | 1860 |
| tggtcaggtc | tggcttagaa | cactcttctc | ccccatggcc | tgcccacctt | tgcccgcaga | 1920 |
| ggaggagttc | cgcactatct | acctgaatac | tctcctgaga | aaagagcctg | gcaacaagat | 1980 |
| gaagcaagcc | aagtctgtgg | gtgacctcgc | cccacctgaa | tgggactgga | ggagtaaggg | 2040 |
| ggctgtcaca | aaagtcaaa | accaggttgg | acccttgga | gtgaggggtg | gacatgggca | 2100 |
| ctgcactggg | gctgacgaag | gggcccggct | ctgactccaa | ctccacccat | ctcttgtagg | 2160 |
| gcatgtgtgg | ctcctgctgg | gccttctcag | tcacagcgaa | tgtggagggc | cagtggtttc | 2220 |
| tcaaccaggg | gacctgtctc | tccctctctg | aacaggggtg | gcatctcgct | ctactcctct | 2280 |
| gtccccagcc | tagccccctc | ggagggcctt | ttgggaccag | ccttctgtct | cctagagctc | 2340 |
| ttggactgtg | acaagatgga | caaggcctgc | atgggaggct | tgccctccaa | tgccactctg | 2400 |
| gccataaaga | atgtgggtat | gcattaatgg | ggtcaggagg | ggcaaccgga | gccacttctc | 2460 |
| cctgtacaag | aagttacttc | ataatggggg | ggagacatga | gcatgagagt | tacacagaac | 2520 |
| tgggtccagg | tcttaatgct | gaccagcca | ggcgtggtgg | ctcatgcctg | taattccaac | 2580 |
| actttgggag | gccaaacttg | gaagatcact | taaggccaga | agttcaggac | caggttgggc | 2640 |
| aacatagcaa | gaccccatct | ctacaaaaaa | taaaagacat | tagccaggca | tgggtgcttg | 2700 |
| catctgtagt | ctcagctact | tgggggggctg | aggcaggagg | atcgcttgag | ccaggagggt | 2760 |
| tgaggctgta | gtgaggcatg | tttgtgccac | tgtactccag | cctgggtgaa | agactgtgtg | 2820 |
| gatgagctct | tgggtaggag | tcagaagttg | gagttgagtt | ctgtctctgc | cacttttctt | 2880 |
| gctggctact | ggtccctcct | ccccatctct | cccgacctca | gatgtgtcat | ttctagaatg | 2940 |
| aagacattct | tcagagggga | tggcctgttg | cctgggggtg | acgaggaatg | tgaaacctcg | 3000 |
| cgtagagggc | ttagttcatt | tctggctgtg | aatggcaaat | gggagcctgc | ccttctctac | 3060 |
| tcacccccac | cgttccccag | gagggtcgga | gacagaggat | gactacagct | accagggtca | 3120 |
| catgcagtcc | tgcaacttct | cagcagagaa | ggccaagggtc | tacatcaatg | actccgtgga | 3180 |
| gctgagccag | aacgagcaga | gtgagtggag | ggcaggttga | ggtgagggtc | ggtggggccg | 3240 |
| gggcctgggt | gcctactgat | gccacccctt | cccatctcag | agctggcgag | ctggctggcc | 3300 |
| aagagaggcc | caatctccgt | ggccatcaat | gcctttggca | tgcaaggtag | gccctagccc | 3360 |
| cactgcacat | gccccatctc | ttgttgacct | ccccgacctc | ttcttgaggt | cgatccccct | 3420 |
| ctccttctcc | acctccagtt | ttaccggcac | gggatctccc | gccctctccg | gccccctctg | 3480 |
| agcccttggc | tcattgacca | tgcgggtgtg | cttgtgggct | acggcaaccg | tgagttccgc | 3540 |
| tgctgtctct | gcatccagcc | aggccacagg | caggggtggg | atcacagcat | ctcagggtcct | 3600 |
| ctagagggga | aataggggga | atgcctagga | accctgtcct | tacccactgc | ctggggccatg | 3660 |
| accagctggg | catcatctgt | cctctctatg | gcagggaagc | tgagctgtgg | gagggtaaat | 3720 |
| attgatggcc | taataacctg | caataggcgg | gtgggtgcgt | gcttccctcc | tgccccaggg | 3780 |
| cttctgcact | gaggctggta | ggtggggccc | tcgctttctg | ctcttttctc | agtcctctgt | 3840 |
| acacagtagg | ccagtgcaa | gtatttgaag | ggtgcaaagt | gattaaggct | ctgcctggag | 3900 |
| aattaaggac | cctgatcctt | gcgctctgca | ctgcacccca | ggctctgacg | ttcccttttg | 3960 |
| ggccatcaag | aacagctggg | gcactgactg | gggtgagaag | gtgagtcctt | ctggcttggc | 4020 |
| ccttggccct | ccagccgcca | tcctaccctg | gtgcctctac | cagctcccc | tctccccag | 4080 |
| ggttactact | acttgcatcg | cgggtccggg | gcctgtggcg | tgaacacccat | ggccagctcg | 4140 |
| gcggtgtgtg | actgaagagg | ggccccagc | tccgggacctg | gtgctgatca | gagtggctgc | 4200 |
| tgccccagcc | tgacatgtgt | ccaggccctt | ccggggagg | tacagctggc | agagggaaag | 4260 |
| gactgggta | cctcagggtg | agcagagggc | actgggctgg | ggcacagccc | ctgcttccct | 4320 |
| gcacccatt | cccaccctga | agttctgcac | ctgcaccttt | ggtgaattgt | ggtagcttag | 4380 |
| gaggatgtcg | gggtgaagg | tggtatcttg | gcagttgaag | ctggggcaag | aactctgggc | 4440 |
| ttgggtaatg | agcaggaaga | aaattttctg | atcttaagcc | cagctctgtt | ctgcccccg | 4500 |
| tttctctgtg | ttgatactat | aaattttctg | gttcccttgg | atttagggat | agtgtccctc | 4560 |

0950083-091201

tccatgtcca ggaaacttgt aaccaccctt ttctaacagc aataaagagg tgtccttgtc 4620
ccgag 4625

<210> 12409
<211> 2895
<212> DNA
<213> Homo sapiens

<400> 12409
cagaagatcc aggccctgga ccgtggcaca gctcagtatg gagtcaccaa gttcagtgat 60
ctcacaggta gggatagtgg ccacagtcct catggatcca ggaagagaca ggaccttgct 120
cgcaaggcct ctggctcagg ctggccttaga acactcttcc tcccatgcc ctgcccacct 180
ttgcccgcag aggaggagtt ccgcactatc tacctgaata ctctcctgag gaaagagcct 240
ggcaacaaga tgaagcaagc caagtctgtg ggtgacctcg ccccacctga atgggactgg 300
aggagtaagg gggctgtcac aaaagtcaaa gaccagggtg gacccttga agtgagggtg 360
ggacatgggc actgcactgg ggctgacgaa ggggcccggc tctgactcca actccacca 420
tctctttagt ggcattgtgt gctcctgtct ggcccttctca gtcacaggca atgtggaggg 480
ccagtgggtt ctcaaccagg ggacctgtct ctccctctct gaacagggtg agcatctcgc 540
tctactcttc tgtcccagc ctagcccctc aggagggtt cttgggacca gccttctgtc 600
tcctagagct cttggactgt gacaagatgg acaaggcctg catgggcggc ttgccctcca 660
atgcctactc ggccataaag aatttgggta tgcattaatg gggtcaggag gggcaaccgg 720
agccacttct ccctgtacaa gaagtactt cataatgggg gggagacatg agcatgagag 780
ttacacagaa ctgggtccag gtcttaatgc tgaccagcc aggcgtggtg gctcatgcct 840
gtaattccaa cactttggga ggccaacttg ggaagatcac ttaaggccag aagttcagga 900
ccaggttggg caacatagca agaccccatc tctacaaaaa attaaagaca ttagccaggc 960
atggtggctt gcatctgtag tctcagctac ttgggggggt gaggcaggag gatcgcttga 1020
gcccaggagg ttgaggctgt agtgaggcat gtttgtgcca ctgtactcca gcctgggtga 1080
aagactgctg ggatgagctc ttggtgagga gtcagaagt ggagttgagt tctgtctctg 1140
ccacttttct tgctggctac tggctccctc tcccactctc tccagcctc agatgtgtca 1200
tttctagaat gaagacattc ttcagagggg atggcctgtg gcctgggggt gacgaggaat 1260
gtgaaacctc gcgtagaggg cttagtctcat ttctggctgt gaatggcaaa tgggagcctg 1320
cccttctcta ctcaccccca ccgttcccca ggagggtgg agacagagga tgactacagc 1380
taccagggtc acatgcagtc ctgcaacttc tcagcagaga aggccaaggt ctacatcaat 1440
gactccgtgg agctgagcca gaacgagcag agtgagtgag gggcagggtg aggtgaggtc 1500
aggtggggcc ggggcctggg tgcctactga tgccaccctc tcccatctca gagctggcag 1560
cctggctggc caagagaggg ccaatctccg tggccatcaa tgcctttggc atgcagggtga 1620
ggccctagcc cactgcccc tgcccactct cttgttgacc tccccgacct cttcttggag 1680
tcgatccctt actccttctc cacctccagt tttaccgcca cgggatctcc cgccctctcc 1740
ggccctcttg cagcccttgg ctcattgacc atgcggtgtt gcttgtgggc tacggcaacc 1800
gtgagttccg ctgcctgtcc tgcattccagc caggccacag gcaggggtgg gatcacagca 1860
tctcagggtc tctagagggg aaataggggg aatgcctagg aacctgtcc ttaccactg 1920
cctgggccat gaccagctgg gcatcatctg tcctctctat ggcaggggag ctgagctgtg 1980
ggagggtaaa tattgatggc ctaataacct gcaataggcg ggtgggtgcg tgcttccctc 2040
ctgccccagg gcttctccct gaggtggta ggtgggcccc tcgctttctg ctcttttctc 2100
agtccctgtc acacagtagg ccagtgcaa gtatttgaag ggtgcaaagt gattaaggct 2160
ctgcctggag aattaaggac cctgatcctt gcgctctgca ctgcaccca ggctctgacg 2220
ttcccttttg ggccatcaag aacagctggg gcactgactg gggtgagaag gtgagtttg 2280
ctggcttggc ccctggccct ccagccgcca tcctaccctg gtgccctcac cagctcccc 2340
tctccccag ggttactact acttgcatcg tgggtccggg gcctgtggcg tgaacaccat 2400
ggccagctcg gcggtggtgg actgaagagg gggccccagc tcgggacctg gtgctgatca 2460
gagtggtgctg tgccccagcc tgacatgtgt ccaggccctc cccggggagg tacagctggc 2520
agagggaaaag gcactgggta cctcagggtg agcagagggc actgggctgg ggcacagccc 2580
ctgcttccct gcacccatt cccacctga agttctgcac ctgcacctt gttgaattgt 2640
ggtagcttag gaggatgtcg ggggaaggg tggtatcttg gcagttgaag ctggggcaag 2700
aactctgggc ttgggtaatg agcaggaaga aaattttctg atcttaagcc cagctctgtt 2760
ctgccccgcg tttctctgtt ttgatactat aaattttctg gttcccttgg atttagggat 2820
agtgtccctc tccatgtcca ggaaacttgt aaccaccctt ttctaacagc aataaagagg 2880
tgtccttgtc ccgag 2895

<210> 12410
<211> 4193
<212> DNA
<213> Homo sapiens

<400> 12410
tcggcacttt caaagtcctg gatgagctcg gggggcgcgt gctgctgcgg aaggactgtg 60
gccagtgga caccaaggtt ccaggtgctg gggagcccaa gtcagccttc actcagggct 120
cagccatgat ttcttctctg tcccaaaacc atccagacaa cagaaacgag acttttcagct 180
cagtcatttc cctgttgaat gaggatcccc tgtcccaggt gaggagccct cagcttgagg 240
agccctcagc ttgaggagcc agccgctgcc tcatcacctt tctcccttcc ctctggagtg 300
ggtttctctg gtcagcctaa agactggctt gcctatccag gacttgccctg tgaagatggc 360
ttcaatcttc aagaactttg tcattacctt taaccggaca tatgagtcaa aggaaggtga 420
ggacccagcc ttggctgtac ctgttcctat cagaacagga ctttcccccc aacttggcac 480
cttgggtgtg gggaggagaa agacaagagg cagtgtacct gttcaaggac ccataattc 540
ctgagctctc cctaagcctt cccagcctgg cagccaccct gactacctgg ccccttctcc 600
taccttatct tcccgtcagc aagccatggg tcttgccggc gcgtgggtggc tcacctctgt 660
aatcgcagta ctttgggagg ccgaggtggg cagattacct gaggtcagga gttcaagacc 720
agcctggcca acatggtgaa accccatctc tactaaaaaa aaagtacaaa aattagccag 780
gtgtgggtggc gcacacctgt ataccagcta ctccggaggc tgaggcagga aaatcacttg 840
aacctgggag gcggaggttg cagtgcagaa agattgtgcc actgcactcc agcatgggtg 900
acaagcgaaa actctgtctc aaaaaaaaaa aaaagaagct ctgcatctcc atcactctgg 960
caggggtggg tggggcagag gctggatttt ttgtgctgga gactccttga caacatggcc 1020
tttccccacc acctcttgtg ggtgggtgtc tttagacccc atttactgct tttgcacctg 1080
ggaagtcata acttcagttt ggccctaaaa gttgatcaga cctcccactc catcacttgc 1140
atgtctggcc cccaccctta cctgctcccc ggggaaaccc ctgcctgcta gcccacattg 1200
cccttccttt tatctgcctg gggtcgaacc cctcctcttc tgctccttgg tctcagaag 1260
cccgggtggc cctgtccgtc tttgtcaata acatggtgcg agcacagaag atccaggccc 1320
tggaccgtgg cacagctcag tatggagtca ccaagttcag tgatctcaca gtagggata 1380
gtggccacag tctcatgga tccaggaaga gacaggacct tgctcgcaag gcctctggct 1440
aggtctggct tagaacctc ttccctccca tgccctgccc acctttgccc gcagaggagg 1500
agttccgcac tatctacctg aatactctcc tgagaaaaga gcctggcaac aagatgaagc 1560
aagccaagtc tgtgggtgac ctgcgccac ctgaatggga ctggaggagt aagggggctg 1620
tcacaaaagt caaagaccag gttggacccc tggaaagtga ggtgggacat gggcactgca 1680
ctggggctga cgaaggggcc cggctctgac tccaactcca cccatctctt gtagggcatg 1740
tgtggctcct gctgggcctt ctcaagtcaca ggcaatgtgg agggccagtg gtttctcaac 1800
caggggaccc tgctctccct ctctgaacag ggtgagcatc tcgctctact cctctgtccc 1860
cagcctagcc cctcaggagg gcttcttggg accagccttc tgcctcctag agctcttgga 1920
ctgtgacaag atggacaagg cctgcatggg cggcttgccc tccaatgcct actcgccat 1980
aaagaatttg ggtatgcatt aatggggtca ggaaggccaa ccggagccac ttctccctgt 2040
acaagaagtt acttcataat gggggggaga catgagcatg agagttacac agaactgggt 2100
ccaggtctta atgctgaccc agccaggcgt ggtggctcat gcctgtaatt ccaacacttt 2160
gggaggccaa cttgggaaga tcaactaagg ccagaagttc aggaccaggt tgggcaacat 2220
agcaagaccc catctctaca aaaaattaaa gacattagcc aggcattggtg gcttgcattc 2280
gtagtctcag ctacttgggg ggctgaggca ggaggatcgc ttgagcccag gaggttgagg 2340
ctgtagttag gcatgtttgt gccactgtac tccagcctgg gtgaaagact gctgggatga 2400
gctcttgggt aggagtcaga agttggagtt gacttctgtc tctgccactt ttcttgctgg 2460
ctactggctc ctcctcccca tctctccag cctcagatgt gtcatttcta gaatgaagac 2520
attcttcaga ggggatggcc tgtggcctgg ggtggacgag gaatgtgaaa cctcgcgtag 2580
agggcttagt tcatttcttg ctgtgaatgg caaatgggag cctgcccttc tctactcacc 2640
cccaccgttc cccaggaggg ctggagacag aggatgacta cagctaccag ggtcacatgc 2700
agtcctgcaa cttctcagca gagaaggcca aggtctacat caatgactcc gtggagctga 2760
gcagaacga gcagagttag tgaggggagc ggtgaggtga ggtcaggtgg ggccggggcc 2820
tgggtgccta ctgatgccac cccttcccat ctcaagctg gcagcctggc tggccaagag 2880
aggcccaatc tccgtggcca tcaatgcctt tggcatgag gtgaggccct agccccactg 2940
cccctgcccc atctcttgtt gacctcccc acctctctt ggagtcgac ccctactcct 3000
tctccaccc cagttttacc gccacgggat cccccccct ctccggcccc tctgcagccc 3060
ttgcgtcatt gacctgcgg tgttgcttgt gggctacgga accgtgagtt ccgctgctg 3120
tctgcatcc agccaggcca cagcgagggg tgggatcaca gcatctcagg tctcttagag 3180
gggaaatagg gggaatgcct aggaaccctg tccttaccce ctgcctgggc catgaccagc 3240
tgggcatcat ctgtcctctc tatggcaggg aagctgagct gtgggagggt aaatattgat 3300

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| ggcctaataa | cctgcaatag | gcgggtgggt | gcgtgcttcc | tccctgcccc | agggctttctc | 3360 |
| cctgaggctg | gtaggtgggc | ccctcgcttt | ctgctctttt | cctagtccct | gtcacacagt | 3420 |
| aggcccagtg | caagtatttg | aagggtgcaa | agtgattaag | gctctgcctg | gagaattaag | 3480 |
| gacctgatc | cttgcgctct | gcactgcacc | ccaggctctg | acgttccctt | ttgggccatc | 3540 |
| aagaacagct | ggggcactga | ctggggtgag | aaggtgagtc | ttgctggctt | ggcctgccct | 3600 |
| ccagccgcca | tcctaccctg | tgcctcacc | agctccccct | ctccccaggg | ttactactac | 3660 |
| ttgcatcgcg | gggtccggggc | atgtggcgctg | aacaccatgg | ccagctcggc | gggtggtggac | 3720 |
| tgaagagggg | ccccagctc | gggacctggg | gctgatcaga | gtggctgctg | ccccagcctg | 3780 |
| acatgtgtcc | aggcccctcc | ccgggaggta | cagctggcag | agggaaaggc | actgggtacc | 3840 |
| tcagggtgag | cagagggcac | tgggctgggg | cacagcccct | gcttccctgc | acccccattcc | 3900 |
| caccctgaag | ttctgcacct | gcacctttgt | tgaattgtgg | tagcttagga | ggatgtcggg | 3960 |
| gtgaaggggtg | gtatcttggc | agttgaagct | ggggcaagaa | ctctgggctt | gggtaatgag | 4020 |
| caggaagaaa | atcttctgat | cttaagccca | gctctgttct | gcccccgctt | tcctctgttt | 4080 |
| gatactataa | atcttctggg | tcccttggat | ttagggatag | tgtccctctc | catgtccagg | 4140 |
| aaacttgtaa | ccaccctttt | ctaacagcaa | taaagagggtg | tccttgctcc | gag | 4193 |

<210> 12411
 <211> 1198
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|------|
| <400> 12411 | | | | | | |
| gggagagacc | cagagagggga | tctttattca | gaagcacttg | gctggctttt | ctcttaggcc | 60 |
| cttgctccga | gggacggatg | ggatcagcca | caggggtgcat | cctctctcca | tcttgcatag | 120 |
| agaacctcag | tggttggggg | caaaggctgc | tctccccata | gagggcactg | gagaaggcca | 180 |
| cgtagtccag | ggctccagcc | ggggcccccg | atcccttgta | gggcaccata | cggcggatgc | 240 |
| agtactcggc | ctgcttggca | gggagctcgc | gccgcagctc | ctcgggggtg | atgtagtctt | 300 |
| ggggagaaga | ggcgttgagg | acccacaggt | cccgtgccct | gccctagccc | accagcccct | 360 |
| ccaccgcctg | ggactcacct | tgtctcctgc | caagatcttg | aaggaagcta | caacttgctc | 420 |
| agtcgtgtca | gtctcggctg | tctctcgggt | catgaagtct | atgaaggcct | ggaaggtcac | 480 |
| caccccagct | gcgttggggg | ccaccatggg | catgatgcga | gcaaactcca | cttccccctg | 540 |
| cagggataga | ggccaggcac | tatgcccatg | agcactaaag | ccaggagggc | tcccagtgct | 600 |
| ccctcctggg | gactgtccaa | cctcagctag | cagagcccca | gtaacaaggg | agttcccttc | 660 |
| ctccagagac | cttagccctg | gctgtaggaa | gtcctttatg | gtaggctgaa | atctgcatcc | 720 |
| taccacagc | aggaagcaga | tttgctccct | ggctctgatt | ttttttccag | ggccacaccc | 780 |
| gtttctgtag | tgctgtttcc | ctacaggtaa | aaatgttgca | agctcagact | ttgggtccac | 840 |
| acagaactgg | gtccaagtga | gttttacctc | cctgagcctt | gctagcccct | gtgtggatgt | 900 |
| agtgaagatg | caggggatgg | tgtatgtgaa | gatgggaggt | gcacagtagg | tgatcagcac | 960 |
| agaggagggg | gtactttggg | actcctggga | aggagctggg | gagctctcac | caggtcatag | 1020 |
| cccatggaga | tgaggcaagc | tcggaagtca | tcaggctcca | tcattccatt | ccgcttctgt | 1080 |
| agggggtgag | tggttatcag | gcttggtctc | cagcctccac | cagcccccaa | gtgtcttacc | 1140 |
| ccacagggcc | aggcccctgc | tgaccctgtc | aaagtgggtg | aaggatgctc | ggaactcg | 1198 |

<210> 12412
 <211> 3073
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|-----|
| <400> 12412 | | | | | | |
| gggagagacc | cagagagggga | tctttattca | gaagcacttg | gctggctttt | ctcttaggcc | 60 |
| cttgctccga | gggacggatg | ggatcagcca | caggggtgcat | cctctctcca | tcttgcatag | 120 |
| agaacctcag | tggttggggg | caaaggctgc | tctccccata | gagggcactg | gagaaggcca | 180 |
| cgtagtccag | ggctccagcc | ggggcccccg | atcccttgta | gggcaccata | cggcggatgc | 240 |
| agtactcggc | ctgcttggca | gggagctcgc | gccgcagctc | ctcgggggtg | atgtagtctt | 300 |
| ggggagaaga | ggcgttgagg | acccacaggt | cccgtgccct | gccctagccc | accagcccct | 360 |
| ccaccgcctg | ggactcacct | tgtctcctgc | caagatcttg | aaggaagcta | caacttgctc | 420 |
| agtcgtgtca | gtctcggctg | tctctcgggt | catgaagtct | atgaaggcct | ggaaggtcac | 480 |
| caccccagct | gcgttggggg | ccaccatggg | catgatgcga | gcaaactcca | cttccccctg | 540 |
| cagggataga | ggccaggcac | tatgcccatg | agcactaaag | ccaggagggc | tcccagtgct | 600 |

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| cctcctctggg | gactgtccaa | cctcagctag | cagagcccca | gtaacaaggg | agttcccttc | 660 |
| ctccagagac | cttagccctg | gctgtaggaa | gtccttttatg | gtaggctgaa | atctgcatcc | 720 |
| taccacagc | aggaagcaga | tttgctccct | ggctctgatt | ttttttccag | ggccacaccc | 780 |
| gtttctgtag | tgctgtttcc | ctacaggtaa | aaatgttgca | agctcagact | ttgggtccac | 840 |
| acagaactgg | gtccaagtga | gttttacctc | cctgagcctt | gctagccctt | gtgtggatgt | 900 |
| agtgaagatg | caggggatgg | tgtatgtgaa | gatgggaggt | gcacagtagg | tgatcagcac | 960 |
| agaggagggg | gtactttggg | actcctggga | aggagctggg | gagctctcac | caggtcatag | 1020 |
| cccatggaga | tgaggcaagc | tcggaagtca | tcaggctcca | tcattcccatt | ctgcttctgt | 1080 |
| aggggggtgag | tggttatcag | gcttggtctc | cagcctccac | cagcccccaa | gtgtcttacc | 1140 |
| ccacagggcc | aggcccctgc | tgaccctgtc | aaagtgggtg | aaggatgctc | ggaactcggt | 1200 |
| gagctgctcc | tggtctcagtc | ccttggcgtc | tcgggtcagt | acctgggttc | ccacttcatt | 1260 |
| gatggtgcgg | gcaatggagg | tgagcagctg | ctcccagccc | acgcggatgt | gctggcggtc | 1320 |
| aggggacagg | ccactgtcag | tgggcggcca | gtgcctggcc | actggctcta | gctccacatc | 1380 |
| cagttcactg | aatgaccctg | ggcaagtcct | ccccctcact | gggcctccat | ccccatctgg | 1440 |
| aggctccact | gagtaaccca | ccccaccccc | agcagtcctt | cctgtctttt | gataaccagc | 1500 |
| tatggccaat | cttggcctgg | ttttggacgg | ctttgtgact | ctggaagggg | cactttccat | 1560 |
| cgctgggtct | taagggacct | ggccaagctg | aactggggac | tctgctggga | cacacatgct | 1620 |
| ctgtccagct | gtgatctccc | tgggcctcct | cagccagctg | tgctcccca | ctctcctgag | 1680 |
| aggggtgtgat | cccacctcca | tgctgtagac | ggtgtgctta | ttgtcgaaca | ccaggctctc | 1740 |
| ctgcagcagc | tggtggtcac | cctccagccg | gtcaatgtta | gtcttgtagt | tgataatggt | 1800 |
| ctgctcctgc | tgccgtagcc | cagccatctg | ctcctccaga | gagccagcta | gccctgctgc | 1860 |
| cagccgcccc | acttcctgca | gggggtccca | ggcagcatga | gggctcccaa | ctccctgtgg | 1920 |
| cccagccctg | gccccatccc | cccagggttg | accactatc | ccagccctta | cctccacctt | 1980 |
| cgcctggatc | caggggtccaa | tggcattggc | ctgggcccga | aactgtcgcc | ggagcctctc | 2040 |
| gtttacctgc | tgccgtgcca | gctcctcctg | cagtgtctgg | tcacagctgg | gcaccagctt | 2100 |
| tcggacctgg | gaggagggca | gttatgccag | agccagctct | gggggctggg | aaatggcttt | 2160 |
| aggggagatg | ggctccagcc | cctcaaacct | cagccctgt | tgctttgagc | caacttgtct | 2220 |
| gggatatacg | agaaagctct | tgggcaagtc | actaaccat | gtgggcttca | gtttttctcat | 2280 |
| ctgcaaaaatg | gggctgatgg | catcatttac | taatatgggt | ggatttataa | aagatgtcca | 2340 |
| cacacaaggc | ttaattctac | ttcacatcag | tcctgacagg | agaatgctgc | tgttacagct | 2400 |
| catcatatac | agatgagccc | gagacaggca | aggcgattta | tccaatccca | cgtggagtct | 2460 |
| gtggcagacc | ccacatctga | agatggactt | tattctccat | atcttgggcc | acccgagatt | 2520 |
| tcagggtggg | cacagtatgc | aggagggggg | gggaggaagg | ctgcaggtgg | cactgaccat | 2580 |
| atcccacttg | gtgttgatgt | cctgcgggct | gagggtgatg | tagggattgg | tggagcaggg | 2640 |
| ccgcagccca | tacgtctggc | agatcttctg | gatctcacc | tggtatgcca | tgatggcacc | 2700 |
| tcgctctcag | tcagcctcgg | gcagtgttgc | cttgaactga | tcgtgcgctg | tcagcaggct | 2760 |
| ctggggacga | caggcaggaa | gtgtcagctg | gtgtcccca | cttaccacag | gcaacagaaa | 2820 |
| gggcagcagt | gtgccccagg | ccaccaccca | gtcctgggca | gtcctgacac | aagaaccccg | 2880 |
| gcctcctgtc | ttccagccca | gcactcgggg | actggggttt | tcctcccatc | cctatgcccc | 2940 |
| aggagcctaa | agttgtgggt | ggcagaatct | ggggccagct | ttcctgtcat | cctatccatc | 3000 |
| ccctgcaacc | ctggcaccca | cctgggtctc | ctccacagag | tgtaccagcc | acacgtcctg | 3060 |
| caggtcctcc | acg | | | | | 3073 |

<210> 12413

<211> 4463

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (2621)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (2631)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (2753)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4121)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4182)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4192)
<223> n equals a,t,g, or c

<400> 12413

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| gggagagacc | cagagaggga | tctttattca | gaagcacttg | gctggctttt | ctcttaggcc | 60 |
| cttgctccga | gggacggatg | ggatcagcca | caggggtgcat | cctctctcca | tcttgcatag | 120 |
| agaacctcag | tggttggggt | caaaggctcg | tctccccata | gagggcactg | gagaaggcca | 180 |
| cgtagtccag | ggctccagcc | ggggccccgg | atcccttgta | gggcaccata | cggcgggatgc | 240 |
| agtactcggc | ctgcttgga | agggactcgg | ccgcagctcc | tcgggggtga | tgtagttctg | 300 |
| gggagaagag | gcgttgagcc | cacaggtccc | gtgccctgcc | ctagcccacc | agcccctcca | 360 |
| ccgcctggga | ctcaccttgt | ctcctgccaa | gatcttgaag | gaagctacaa | cttgctcagt | 420 |
| cgtgtcagtc | tcggctgtct | ctcgggtcat | gaagtctatg | aaggcctgga | aggtcaccac | 480 |
| cccagctgcg | ttgggggtcca | ccatgggtcat | gatgcgagca | aactccactt | ccccctgcag | 540 |
| ggatagaggc | caggcactat | gcccattgagc | actaaagcca | ggaggggtcc | cagtgtcccc | 600 |
| tcttggggac | tgtccaacct | cagctagcag | agccccagta | acaaggaggt | tcccttccctc | 660 |
| cagagacctt | agccctgggt | gtaggaagtc | ctttatggta | ggctgaaatc | tgcatacctac | 720 |
| ccacagcagg | aagcagattt | gctccctggt | cctgattttt | tttccagggc | cacaccctgt | 780 |
| tctgtagtgc | tgtttcccta | caggtaaaaa | tgttgcaagc | tcagactttg | ggtccacaca | 840 |
| gaactgggtc | caagtgaagt | ttactccctg | agccttgcta | gcccctgtgt | ggatgtagtgt | 900 |
| aagatgcagg | ggatgggtgta | tgtgaagatg | ggaggtgcac | agtaggtgat | cagcacagag | 960 |
| gaggggggtac | tttgggactc | ctgggaagga | gctggggagc | tctcaccagg | tcatagccca | 1020 |
| tggagatgag | gcaagctcgg | aagtcatcag | gctccatcat | cccattccgc | ttctgtaggg | 1080 |
| ggtgagtggg | tatcaggctt | ggtctccagc | ctccaccagc | ccccaagtgt | cttaccctac | 1140 |
| agggccaggc | ccctgctgac | cctgtcaaaag | tggttgaagg | atgctcggaa | ctcgttgagc | 1200 |
| tgtctctggc | tcagtcctct | ggcgctctcg | gtcagtacct | ggttctccac | ttcattgatg | 1260 |
| gtgctgggcaa | tggaggtgag | cagctgctcc | cagcccacgc | ggatgtgctg | gcggtcaggg | 1320 |
| gacaggccac | tgtcagtggg | cggccagtg | ctggccactg | gctctagctc | cacatccagt | 1380 |
| tactgaatg | accctgggca | agtcctcccc | ctcactgggc | ctccatcccc | atctggaggc | 1440 |
| tccactgagt | aaccaccccc | caccccagca | gtccttctct | tcttttgata | accagctatg | 1500 |
| gccaatcttg | gctgggtttt | gacggctttg | tgactctgga | agggtcactt | tccatcgctg | 1560 |
| ggtcttaagg | gacctggcca | agctgaactg | gggactctgc | tgggacacac | atgctctgtc | 1620 |
| cagctgtgat | ctccctgggc | ctcctcagcc | agtgtcgctc | cccactctc | ctgagagggt | 1680 |
| gtgatcccac | ctccatgctg | tagacgggtg | gcttattgtc | gaacaccagg | ctctcctgca | 1740 |
| gcagctgggtg | gtcaccctcc | agccgggtcaa | tgttagtctt | gtagttgata | atgttctgct | 1800 |
| cctgctgccg | tagcccagcc | atctgctcct | ccagagagcc | agctagccct | gctgccagcc | 1860 |
| gccccacttc | ctgcaggggg | ttcccaggca | gcattgaggg | tcccaactcc | ctgtggccca | 1920 |
| gctctggccc | catcccccca | ggttggaccc | actatcccag | cccttacctc | caccttcgcc | 1980 |
| tggatccagg | gtccaatggc | attggcctgg | gccgcaaact | gtcgccggag | cctctcgttt | 2040 |
| acctgctgcc | gtgccagctc | ctcctgcagt | gtctgggtcac | ggctgggcac | cagctttcgg | 2100 |
| acctgggagg | agggcagtta | tggcagagcc | agctctgggg | gctgggaaat | ggcttttaggg | 2160 |
| gagatgggct | ccagcccctc | aaacctcagc | cctgttgctt | ttgagccaac | ttgtctggga | 2220 |
| tatacgagaa | agctcttggt | caagtcacta | acccatgtgg | gcttcagtgt | tctcatctgc | 2280 |
| aaaatggggc | tgatggcatc | atttataact | aattatgggt | ggattttata | aagatgtcca | 2340 |
| cacacaaggc | ttaattctac | ttcacatcag | tcttgacagg | agaatgctgc | tgttacagct | 2400 |
| catcatatac | agatgagccc | gagacaggca | agggcatttta | tccaatccca | cgtggagttc | 2460 |
| gtggcagacc | ccacatctga | agatgggactt | tattctccat | atcttggggc | acccgagatt | 2520 |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| tcaggggtggt | cacagtatgc | aggaggggggt | gggaggaagg | ctgcaggtgg | cactgaccat | 2580 |
| atcccacttg | gtgttgatgt | cctgcgggct | gaggggtgatg | nagggattgg | nggagcaggg | 2640 |
| ccgcagccca | tacgtctggc | agaacttctg | gatctcacc | tggatgcca | tgaaggcacc | 2700 |
| tcgtctcgg | ccagcctcgg | gcagctcggt | gccttgaact | gatcgtgcgc | tgncagcagg | 2760 |
| ctctggggac | gacaggcagg | aagtgtcagc | tgggtgtccc | acttaccaca | ggcaacagaa | 2820 |
| agggcagcag | tgtgccccag | gccaccacc | agtcttgggc | agtcttgaca | caagaacccc | 2880 |
| ggcctcctgt | cttccagccc | agcactcggg | aactgcgggt | ttcctcccat | ccctatgccc | 2940 |
| caggagccta | aagttgtggg | tggcagaatt | tggggccagc | ttcctgtca | tcctatccat | 3000 |
| cccctgcaac | cctggcaccc | acctgggtct | cctccacaga | gtgtaccagc | cacacgtcct | 3060 |
| gcaggtcctc | cacggcacca | tccagccagt | tgttgaaggg | cgcgcggccg | ggcaaaactcc | 3120 |
| agttgcagct | ggccaatggg | ctccaggagc | ttctccatcc | gctagagggtg | ggaggcgtag | 3180 |
| tgggtcagaa | gcctgccttg | cagacctggc | ctcacccacc | taccacccc | ccagctcccc | 3240 |
| ggccccagc | cccacctcta | gcgcaccccg | cctcttcttg | gtcaggggtgc | ccaggttgtc | 3300 |
| ccactgatcg | cagatggcct | ggcagcggct | attcactgag | gctgcctcgt | ggtagtccag | 3360 |
| ctcactggga | gcgagaagta | gggcgagtg | ggggccagcc | ccagcccaga | tgtcctaact | 3420 |
| gcactcccag | ggctggaacc | tgctcccccg | atgggggtga | aggcgtgcgg | gagccagggc | 3480 |
| aggtgggtggg | taaagctggg | tgctttccaa | gaggggcggt | accagcgcat | ccctctgggc | 3540 |
| aggtggggcg | ccgcgggtcc | ttagctgcag | tccatggagg | tgcttgggtg | gaggggcggg | 3600 |
| gttgcgcaag | aaggggcggg | ttcatgggag | ggggtggcca | ggccaaggct | gatggggagg | 3660 |
| gtttggagca | gtaagccggg | tgaagagagc | gggcagggtta | gagggcagggt | cacggagtga | 3720 |
| gacagggtcaa | gcgccagtg | gaagagtgtg | agcagcagag | cgggggtccgg | aggtgggggt | 3780 |
| gggggttccag | gaggggcgga | gcgaatggga | cctgggtacc | acggcggggt | acagaaccca | 3840 |
| ggagagccta | gtgtcttgag | aagggcaatg | gggatcaggg | tggggctcgc | caccgggggc | 3900 |
| ggggccgggg | gtgttggggg | cgggccccgc | gagccccgcc | tacttgagct | cctggggccag | 3960 |
| cgccgcaatg | tgctccacgc | ggctcctggg | cgccgccagg | tcgctctcaa | agcctcgtgg | 4020 |
| cgccgcagca | acgcccgcac | ctcctgtagc | aaagccgaat | cgtagtcgcg | ctgggtcagc | 4080 |
| atctcctcct | ttcctgctca | aagagatgcc | ggctccgggt | nccagtggtg | ggcaggggca | 4140 |
| gggggtgcgcg | gcgggctgcg | tgaccatgaa | gcgtctctgc | tnaagggtgg | gntcgcaccg | 4200 |
| gcctagctcg | ttctgagggg | ttgtctctgc | gcgtcgggtg | aataacgtag | gtgaaagtcc | 4260 |
| tcttccgtgg | cgtagatccg | aaatgacatc | agcgtccctt | gagcgagcta | cgctcagggg | 4320 |
| gcccttggtg | cagtttttag | ataatttgac | cttaaaatag | ctctcaacga | ttctgtgaacc | 4380 |
| cccatgagcc | cctgaccggg | cctcctttgt | tcactacaga | aatcctcgac | agaacaacga | 4440 |
| atggatgttt | ctatccagag | ttaa | | | | 4463 |

<210> 12414

<211> 4606

<212> DNA

<213> Homo sapiens

<400> 12414

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| gaactgacgc | tccccaaaccg | tcccgcgaact | gtcctgtccc | agactttggc | accgtcgggg | 60 |
| tccgtcgctc | ccgaatgtga | cagcatcccc | accccggtg | ctgcccagga | tccgcccggac | 120 |
| cccggcctcg | atatgggaga | cctggaaactg | ctgctgcccg | gggaagctga | agtgtctggtg | 180 |
| cggggctctgc | gcagcttccc | gctacgcgag | atgggctccg | aaggggtgagg | cacccgggtc | 240 |
| aggcggagtc | ccggagtcac | tgctccttag | tcggggagct | ggggcctgac | tcgggggagg | 300 |
| ggctgcccag | tgtggagggg | ctcccaaagt | ggggagcaga | gcgttccgag | acaggagtat | 360 |
| tactgctcct | gagccccctg | tgtccccctca | ggatcagggt | aggcttcagt | aggatccagc | 420 |
| ccccatcccc | actcctaagt | cacacacgtg | gacgcacatg | cacttaccct | ctgaggcagg | 480 |
| tggaaaccagc | agcatgagaa | cctgggagaag | ctgaacatgc | aagccatcct | cgatgccaca | 540 |
| gtcagccagg | gcgagcccat | tcaggagctg | ctgggtcacc | atgggaagg | accccgaggt | 600 |
| cacaggcagg | gttctctgct | tcccccatac | ctcacctact | ctacccctcc | ggagtcccct | 660 |
| gtgtgccttt | cccctctggc | ctggtacacc | tggtctccct | gaaggacaaa | gaggaatgtg | 720 |
| ttacatgttt | cattttgtat | ccctatttga | caggactctg | gcacaccagg | ctgggtgacg | 780 |
| ggcatgagtt | gattagggag | aaagctgtag | gtcctagaac | agcttaggct | tcaaggggaa | 840 |
| ggcccaaagt | ctaaaggcat | ctgtgaattg | actgtaaggc | tgggtgggtgg | gaaggggtgg | 900 |
| ggaggggttg | gggagggcgg | gagggagggg | agataaccta | actggagggtg | gaacttcggc | 960 |
| atggaaggaa | gcagccttcc | caacatgaaa | gggggaagtt | agaaaccagg | gagatgcctg | 1020 |
| gctggaacat | ggaccagggg | gtgtcaccag | cagatgacct | gagatatcaa | ttgacaaaaa | 1080 |
| aaaaaaaaaa | aaaagccggg | catggtagct | catgcctgtt | atcccagcat | tttgggaggc | 1140 |
| caagacgggt | ggatcatctg | aggtcaggag | ttcaaggcca | gcctggccaa | catggtgaaa | 1200 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| ccccacctct | actaaaaata | caaaaatttg | cagagcatgg | tggtgcacac | ctgtaatccc | 1260 |
| agctactcgg | gaggctgagg | caggagaatc | gcttgaacct | gggaggcaga | ggttacagag | 1320 |
| agccaagatc | atgccactgc | actccagcct | gggtgacaag | agtgaactc | cgtctcaaaa | 1380 |
| aaaaaaaaaa | aaaaaagaaa | ggtcctttgc | aaaagaaaaga | tggaactcat | actaggggat | 1440 |
| aggatagga | cagggcactg | tgaaggggtc | tgagtaggag | tgaggccaag | gcacacaaga | 1500 |
| gctttggagg | accacagaca | gggactagag | ggagggcatg | aggagaaggg | ctggcttgaa | 1560 |
| agggatgcct | gaatgggcgg | gcagaggata | aggggtgcagg | tgcaggcagg | gcaaggcagt | 1620 |
| ctgggaactg | ggcaggagcc | agtcacataa | gcatgaggga | catccacaga | ggtgttgagg | 1680 |
| gcagctggta | atgaaggtcc | aaggtgcaag | agagaagtca | ggaaggatac | tcatgggtct | 1740 |
| ggaatagttt | aggggcccag | cagtgttttg | ggatatcagg | gttgagctga | gccggggatg | 1800 |
| ggaggggtgc | caggcaaagg | taggcccatc | tcacccctgt | cctttaccct | acccttcaaa | 1860 |
| ggtcccaaca | ctggtggagg | agctgatcgc | agtggagatg | tggaagcaga | aggtgttccc | 1920 |
| tgtgttctgc | aggggtggagg | acttcaagcc | ccagaacacc | ttccccatct | acatgggtgg | 1980 |
| gagctggggc | cctggttcat | acctcttctc | actccttcag | agggctctgg | accggggagg | 2040 |
| agagctggta | gccccatctc | cttcttcagg | ccctgtcctt | ctctttatct | gacaggtgca | 2100 |
| ccacgaggcc | tccatcatca | acctcttgga | gacagtgttc | ttccacaagg | tgagggacta | 2160 |
| tctctgcca | tgggccacag | ttccgggtca | gggcctggca | ggaagggaga | ttgtgtctgt | 2220 |
| gtggggaagg | catcagacac | agaaagtttc | cctcctcctt | ttcccaggag | gtgtgtgagt | 2280 |
| cagcagaaga | cactgtcttg | gacttggtag | actattgcca | ccgcaaactg | accctgctgg | 2340 |
| tgcccagag | tggtctgtgt | ggccccctg | agggggaggg | atcccaggac | agcaaccca | 2400 |
| tgcagggtgg | ttgaggttac | ctagggttgt | gaaagctcag | gtctgggttc | ccaaggcct | 2460 |
| gcgcagggtga | gggtggccca | gcgtgaacac | tgtgtgacct | cccaggagct | gcagaagcag | 2520 |
| gcagagctga | tggaaatttg | gattgcactg | aaggccctct | cagtactacg | ctacatcaca | 2580 |
| gactgtgtgg | acagggtgag | agtccgactg | ggcctggggc | tactgtggag | ggctggaaga | 2640 |
| ccgggcctgt | agcctgcctc | tactcacctc | cttcacaacg | tcctgcccc | tagcctctct | 2700 |
| ctcagcacct | tgagccgtat | gcttagcaca | cacaacctgc | cctgcctcct | ggtggaactg | 2760 |
| ctggagcata | gtccctggag | ccggcgggaa | ggaggtaggg | tcctccccc | ccagcctaag | 2820 |
| ccccaggcta | ctgcttcagg | gtatcttttt | gatagagggg | ggcagcttgc | acacacgaag | 2880 |
| acaaaccttg | tccccagcc | cactgaggat | accaggatgc | ctcagccaag | gttggcctag | 2940 |
| acctgagctc | tgcagcaggc | caggccccatg | tgtccactac | tgaggctcac | cctgctctgg | 3000 |
| ggtcagcagc | cctatagcct | gggcaagtcc | tgcagcccag | gttctcccat | tcccaggcag | 3060 |
| tggtcagttc | cccagcccc | acagctggct | cacttgaaga | gaattcaacg | tctgcaccca | 3120 |
| gtgtgtctgg | tcctctcccc | aggcaagctg | cagcagttcg | agggcagccg | ttggcatact | 3180 |
| gtggccccct | cagagcagca | aaagctgagc | aagttggacg | ggcaagtgtg | gatcgccctg | 3240 |
| tacaacctgc | tgctaagccc | tgaggctcag | gcgcgctact | gcctcacaag | ttttgccaag | 3300 |
| ggacgggtac | tcaaggctag | actccctccg | caccagcccc | cacagcccca | gtaccgccct | 3360 |
| ccccatccta | ccccgactgc | gtccctgctg | tttatctttg | cccacccacc | tcaaccccag | 3420 |
| tgctcttttc | agtccctggg | cctcagggtga | cacaccagct | agtgggacat | gggcccccc | 3480 |
| aggcattctc | agcccaaccc | agcccccttc | ttttccttgg | ccccctggcc | agcacctgca | 3540 |
| tcacactggc | ctccactgga | cacccttgca | gcttcggggc | ttcctcacag | acacactgct | 3600 |
| ggaccagctg | cccaacctgg | cccacttgca | gagtttcctg | gccccatctga | ccctaactga | 3660 |
| aaccagcct | cctaagaagg | acctgggtgt | ggaacaggta | ggcactggaa | agttagctgc | 3720 |
| tcaggaccac | tgteccactt | taccagcacc | ttcctgccac | tctccacttc | tctctcctag | 3780 |
| atcccagaaa | tctgggagcg | gctggagcga | gaaaacagag | gcaagtggca | ggcaattgcc | 3840 |
| aagcaccagc | tccagcatgt | gttcagcccc | tcagagcagg | acctgcccgt | gcaggcgcca | 3900 |
| aggtaaggcc | tgtggaatg | gcaggggagg | tggaagggat | gcaggaggca | tggtgtggg | 3960 |
| tggggtgccc | ccaccttcca | gggccagtca | gaccttctct | actttcccc | aggtgggctg | 4020 |
| agacctacag | gctggatgtg | ctagaggcag | tggtctccaga | gcggccccgc | tgtgcttact | 4080 |
| gcagtgcaga | ggcttctaa | cgctgctcac | gatgccagaa | tgagtgggat | tgctgcaggt | 4140 |
| gagggtatcc | tagaaccttg | gacctctaag | ccctactccc | acatccccc | catgcattgc | 4200 |
| catcctcaat | accacactgc | ctgcaggggag | tgccaagtca | agcactggga | aaagcatgga | 4260 |
| aagacttgtg | tcctggcagc | ccagggtgac | agagccaaat | gagggctgca | gttgctgagg | 4320 |
| gccgaccacc | catgccaagg | gaatccaccc | agaatgcacc | cctgaacctc | aagatcacgg | 4380 |
| tccagcctct | gccggagccc | cagtctccgc | agtggagagc | agagcggggc | gtaaagctgc | 4440 |
| tgaccgatct | ccctcctcct | caccccaagc | gaaggctcga | gacttccctg | cccacccagt | 4500 |
| gggtaggcca | agtgtgttgc | ttcagcaaac | cggaccagga | gggccagggc | cggatgtggg | 4560 |
| gacctcttct | ctctagcaca | gtaaagctgg | cctccagaaa | cacggg | | 4606 |

<210> 12415

<211> 6750

<212> DNA
<213> Homo sapiens

<400> 12415

| | | | | | | |
|------------|------------|-------------|-------------|-------------|-------------|------|
| ttttcagtc | ttttttacaa | atttttttact | ttttttctctc | ctaaaatttc | tgaacataca | 60 |
| gtacaagtat | gagctgcctt | gcaggagagg | cagtcttgca | gccccagctt | catccagaca | 120 |
| catgatgcct | atgttcctct | gggatgacag | agaaagggga | aggaaatggg | aggcactcca | 180 |
| gcatgaggag | caggaattca | cacacggggc | tccaaatgcc | caactgtccc | agtgcctgag | 240 |
| gtgtcccttg | actcagctga | gagagttcaa | caggtcccta | ggcccagctc | ctacatggag | 300 |
| gggcaaatcc | aggcttcccc | taggctggga | agagctcatg | gttggatcct | cttgcggtat | 360 |
| aggtaggc | tgctcacctg | gttcataatg | accaagctgg | tgaggacagg | gcataataca | 420 |
| gccaggtacc | aggctgcacc | agtgcagag | gcagtgaacc | agagtgcagc | catgcccagc | 480 |
| aagaggctgg | cactacccag | caggtagccc | accagcccag | aagtagcatg | gtatagcttg | 540 |
| agcttcgcca | ggggccatcg | gggcagcagc | ttggggtaga | gcagccccac | cccacctgag | 600 |
| cactgcagcc | ctgcccacag | cacagccagc | agccctgcct | gcccagtcg | cgtaaccagg | 660 |
| tgggctttgc | caagctgctc | tttgtggagg | atgacaaggc | cgaggcccag | cagtgcacac | 720 |
| agcagggcca | gcagctgcag | cacccagtg | cagcgtgctc | ggcctttccg | tgagagggag | 780 |
| tgcagcagcg | aactctcagg | agaaaacacc | agtagtgctc | cggtcatcag | gaaggagaac | 840 |
| tgaggaaaca | ggggatggga | agctcaagt | agggtgctgc | cccagaagag | gagaagaggg | 900 |
| ctttatgtaa | cccttagctg | ccagtgcagc | tggtgctgatt | cccccttttc | tttctctccc | 960 |
| cactgacaag | actatccatt | tggtggggca | agagtggaaa | accccatctg | ggatgatata | 1020 |
| tgtgccctga | ataatctcca | cacttctccc | taggtgccag | tctgaaatgt | catctgctgt | 1080 |
| atgttaccaa | gcaaacacag | ggtttgagat | gtggcagtta | taaatgattc | acaagctttg | 1140 |
| tttcctaac | gtggggctgg | atacaatttc | ttggcaagag | ctggccacat | gggtgcactg | 1200 |
| tttcagggaa | agtttaggtg | atcaccagaa | attaaagtaa | aaaggacag | aggtacatcc | 1260 |
| aatgcaatg | tctcagcttt | ctgcctagag | gtgggtgaag | cctcattgtg | cttagacaaa | 1320 |
| tcttaccat | ttgacctggg | tcctgggtct | tcattactct | gattcaagtc | tctttttttt | 1380 |
| ttttttttt | tttttgaga | tagtctctct | ctgtcaccca | ggctggagtg | cagtggcctg | 1440 |
| atctcggtc | actgcaatct | ccgccttccg | ggttcaagca | attctcctgc | ctcaggctcc | 1500 |
| tgagtaactg | ggattacagg | cacctgccac | cacaccagc | taatttttgg | ttttttgggg | 1560 |
| gggttttttg | tttttggtt | ttttttttt | tttgggacag | agcctcgctc | tgctgcctag | 1620 |
| gttagagggt | agagtgcagt | ggcgcaatct | tggtcactg | caacctccgt | ctcctgggtt | 1680 |
| catgcgatcc | tcctgcctca | gcctcccag | tagctgggac | tacaggcgcg | tgccaccatg | 1740 |
| cccggcta | tttttgtatt | tttagtagag | acgggggttt | accatgttgg | ccaagatgg | 1800 |
| ctcgatctcc | tgacctcagg | tgatgtgccc | gcctcggcct | ctaagtgtg | ggattacagg | 1860 |
| catgagccac | cgtgcccagc | ctcaagtctg | aaatatatac | catgggcagg | agtagttgga | 1920 |
| gcatgcaat | cttccaaaca | gatattaaat | gtggacaaa | attcagaggc | tgccagggcc | 1980 |
| accaaccatg | cccatgctcc | caccctaa | aactgcccag | gcccactact | tacagccaaa | 2040 |
| gacataagca | ccgggtgcca | ggagaacagg | cctggaatga | gaagaggagg | cctcatgggg | 2100 |
| ctgaggcaag | aagaaaccag | ccataccaat | ccttaagggt | tgagggaatac | cagcagccca | 2160 |
| tcacccaagg | agggtgctgc | aaactgtgag | ccccttcttg | ctctgcaaca | agctgacccc | 2220 |
| acacctatcc | tctcttctg | gcctcttct | ggatcagagg | ccatgctttg | ccactcctct | 2280 |
| ggcagtcctc | cctccttccc | ttacacctcc | tgagaggcag | ccaaatggag | cacccagaga | 2340 |
| aggaaagaca | aaccaggaat | tctgtgtgcc | ctggccatac | ctacctgtct | cacctcactc | 2400 |
| atcgctccag | cacagaattc | cctcaaccag | ccaggcctgt | tcccgggaag | cccactgccc | 2460 |
| ttcctcccca | ggaacagtg | cccttcccct | cccagagtc | agctatgaat | tctacttact | 2520 |
| ggagccaggc | ctggcaagca | cagccacaaa | gatggtaaag | cccagggcca | caagggtggc | 2580 |
| ggcagcgcca | gaagcagtag | gcagagctcg | gtagatgtgt | gactcggtct | ccgcagaaag | 2640 |
| ggccatcgtc | agccgtgcta | gtggttgtag | cctgaaagca | tagtagcgtg | ggccaggatc | 2700 |
| tcaggtgccc | actgttcact | cctcactgga | gaaaaggctg | caaggcagga | atgccaccct | 2760 |
| cttccaataa | gttatggtag | gaaagaacag | taccaagacc | agcaccagga | atggtcacaa | 2820 |
| catgccagtc | gacggccggc | ggcctgtcaa | cgtgtaccca | tgtctgaact | ggtaccaatc | 2880 |
| gctggcccgc | cttccaggta | ggaggcgcaa | agccatgtaa | gactacaaat | cccagcgtgt | 2940 |
| accacgccgt | cgccggcagt | agagccagct | gggaggggcg | ggagcactat | ggaaattgta | 3000 |
| gttccctgtg | cggtgccag | ttacagcgtg | aatcccctag | cgcaccgcct | ccccagtg | 3060 |
| tgccagcatg | ctgcccctcc | acgctaggga | cttgccctg | tctgcccag | cgcagatctg | 3120 |
| atgcgggtgg | ttcctccaaa | gaaagcggga | tactccgggc | cctgcccgcg | gcaccggcg | 3180 |
| tccgtcacgg | agccgcttta | cttccgggtg | cgacgtctac | ccaccagga | cttccctggg | 3240 |
| cgagccgtcc | cccggcccag | ccacgcctct | gagtcgcgct | gcgcaggcg | cattggggcag | 3300 |
| agggattggc | aagcttgctg | gccccagcga | cacaggcctc | gaggctgtct | ctgacaagtg | 3360 |
| ttcacaggag | gtggggacgc | ctctgcgcga | ggaacgagga | gctacggggc | tgggcccgg | 3420 |

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|------|
| tattgccatg | ggcagcggct | gccgcacgca | atgcatattc | ttcagcgagt | tccacccccac | 3480 |
| gctgggaccc | aagatcacct | atcaggtgcc | acccgggctc | gcgggactgg | gcgggaagag | 3540 |
| ggacgttctc | gagagctcaa | ctggctgcct | gaaggcagta | gtttcccgtg | ctgcacgcag | 3600 |
| gcatgctgct | tcattcgcag | acaactgtga | ggctagagga | tagtcagacc | caggcccccg | 3660 |
| gctcccaatg | tggcagggaa | gacatacgtc | acattggcag | tgtttgtagg | atatcgggct | 3720 |
| gtagggatcc | ggttgggggg | ttccagggtcc | cacagaaggt | gagttgggtg | acccatgagt | 3780 |
| atccctgaac | tgagtgaaga | gtaaattgatg | cataggaagt | ttaggtaagg | caggagaaag | 3840 |
| tgttccagg | agagggaaaca | gcatatgcag | aagccaggaa | ggaggtgaga | tcatagcgta | 3900 |
| tgtttggaaa | cagaaagaag | taataggcct | gagtggatgg | gagagagggg | aacgctggag | 3960 |
| aagaggactt | gggcttgggg | ggcatgagga | ggtcaccatt | tgtactacac | ccagtacaga | 4020 |
| tgtccactga | ggggcccatt | gccactcccc | tccccagggtc | cctgaagact | tcattctccc | 4080 |
| agagctggtt | gacacagtcc | aagtgtacat | catcaccaag | ccagagctgc | agaacaagct | 4140 |
| tatcactgtg | tgagacccta | gctcgggggt | agcgggtggg | ggcagggggt | gtcccaggag | 4200 |
| gaggaaggga | caggcttggg | ggcctgactg | tgttccaatt | atccagcaca | gctatggaaa | 4260 |
| agaagctgat | cggctgtcct | gtgtgcatcg | aacacaagaa | gtacagccgc | aatgctctcc | 4320 |
| tcttcaacct | gggcttcgtg | tgtgatgcc | aggccaagac | ctgcgccctc | gagcccattg | 4380 |
| ttaaaaagct | ggctggctat | ctgaccacac | tagaggtctg | caatgagatg | ggcttggggt | 4440 |
| taccgacagg | cagagttggg | gaagggtgtt | ccatgtctcc | aaagtcccc | aaacctggga | 4500 |
| ccctgcaaac | cagctcagga | ctcagggcag | ccaaccagcc | aggggtcctg | ggatgtgccc | 4560 |
| accatgcttt | ccatgctctg | tctagctaga | gagcagcttc | gtgtccatgg | aggagagcaa | 4620 |
| gcagaagttg | gtgcccata | tgaccatctt | gctggaggag | ctaaatgcct | caggccgggt | 4680 |
| cactctgccc | attggtatgg | ccagcctctg | caaggacagc | agaggggtag | aggagagatg | 4740 |
| ggaaagtga | cccagctagt | caggggagaag | ggcaagactc | atgaacacat | tggtgggcag | 4800 |
| gaaatagcca | tgggctgagg | tgcccatgtc | cagggtccaa | tgcatgatgg | agctgggact | 4860 |
| gggggtaggg | ggaaagcaga | gctctccagc | tctgcccctt | gggcaattcc | ttcccctttg | 4920 |
| tgggectccg | tttctcactc | cataaaaaaga | gaaagattag | ccctaccag | aggcacctgc | 4980 |
| ttgccccaa | ggatgctggg | aggcctggat | ggtaattgag | gacctcttgg | aagaagtggc | 5040 |
| actgaggata | tggatggggc | cccctgcaga | tgagtccaac | accatccact | tgaaggtgat | 5100 |
| tgagcagcgg | ccagaccctc | cgggtggccc | ggagtatgat | gtacctgtct | ttaccaaaga | 5160 |
| caaggaggat | ttcttcaact | cacagtggga | cctcactaca | caacaagtat | gccatccctc | 5220 |
| cctgggtatc | atcacctggg | gctggccaca | gccctggcct | catcctgttt | cttctgacct | 5280 |
| tgtcccactc | tgcccagatc | ctgccctaca | ttgatgggtt | ccgccacatc | cagaagattt | 5340 |
| cagcagaggg | agatgtggag | ctcaacctgg | tgcgcatgtc | tatccagaac | ctgctgtgag | 5400 |
| tgggcctaca | gtcatacctg | ggacaagggt | accagccagg | gaagacctca | ggggccctgg | 5460 |
| gtgtgaggg | tgggaaggca | tggtcctcag | aagctgagca | cagctctctc | tctcaggtac | 5520 |
| tacggcggtt | tgacactggt | gtccatcctc | caggtaggtg | agttggggtt | ggttaagtgg | 5580 |
| agagtggatc | atgtggctgg | accagaccag | ggctgtgtca | gcttcccaag | cccctcactc | 5640 |
| aggcccctat | gccttctgct | accctctagt | actccaatgt | atactgccca | acgcccgaag | 5700 |
| tccaggacct | ggtagatgac | aagtcctgtg | aagaggcatg | tctatcctac | gtgaccaagc | 5760 |
| aaggtagtgg | tgggttctgg | gggaagccat | cttggggagg | gcagggccac | atgatgagct | 5820 |
| gatccctggc | accacagggg | cacaagaggg | ccagtctccg | ggatgtgttc | cagctatact | 5880 |
| gcagcctgag | ccctggcact | accgtgcgag | acctcattgg | ccgccacccc | cagcagctgc | 5940 |
| agcatgttga | tgaacggtca | gaggagaatt | tgctggggca | tttgggagtt | acctgagggg | 6000 |
| agctagacct | tttatgtctc | tcaggagccc | tggatcatgg | ggcactgcca | atccaagcag | 6060 |
| gcttctctga | gatgatgggc | tacagagaca | aaattgaagg | gagactacag | gaaaggggtt | 6120 |
| gcctgcctga | aagaaggcct | ggccaggggc | tcaccccgct | ctctgatcct | caccctagga | 6180 |
| agctgatcca | gttcgggctt | atgaagaacc | tcacaggcgc | actacagaag | tatcctgtgc | 6240 |
| gggtgactcg | ggaagagcag | agccaccctg | ccgggtttta | tacaggctgc | cacagctatg | 6300 |
| acgagatctg | ctgcaagaca | ggtggaggca | ggcgggcagt | cagggtgggt | tcagggcagg | 6360 |
| gtggccaggc | caaggccact | gacctctcct | ccaccacccc | accaggcat | gagctaccat | 6420 |
| gagctggatg | agcggcttga | aaatgacccc | aacatcatca | tctgctggaa | gtgaggctgg | 6480 |
| tagtgactgg | atggacacat | tgctgtgggt | agtcctcct | actaggaggc | ttgtcatact | 6540 |
| gtctagaggt | tgactcttag | ttctgtaaat | aaagacatcc | atttcaaaca | gcctttattg | 6600 |
| agtgtgttt | ctgggcccagc | cgtggggagac | ccagcagtga | atgaaatagc | cacgagccgt | 6660 |
| gggctagatc | gccatctggt | gggcaggacc | gacaatcgac | aaataaaagt | gccggttaat | 6720 |
| tacaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | | | | 6750 |

<210> 12416
<211> 10273
<212> DNA

<213> Homo sapiens

<400> 12416

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|------------|------|
| cccagggtttc | cattgcgcg | ctctcctcag | ctccttcccc | ccgcccagtc | tggatcctgg | 60 |
| gggaggcgct | gaagtcgggg | cccgcctgt | ggccccgccc | ggccccgcgt | tgctagcgcc | 120 |
| caaagccagc | gaagcacggg | cccaaccggg | ccatgtcggg | ggagcctgag | ctcattgagc | 180 |
| tgcgggagct | ggcaccgcgt | gggcgcgctg | ggaagggccg | cacccggctg | gagcgtgcc | 240 |
| acgcgctgcg | catcgcgcg | ggcaccgcgt | gcaacccccc | acggcagctg | gtccctggcc | 300 |
| gtggccaccg | cttccagccc | gcggggcccc | ccacgcacac | gtggtgcgac | ctctgtggcg | 360 |
| acttcatctg | gggcgtcgtg | cgcaaaggcc | tgcagtgcgc | gcgtgagtag | tggccccgcg | 420 |
| cgctacagag | agcgggaagg | gcagccaagg | ggcagcgcag | tcgcccgggg | tcaagtcgcg | 480 |
| gcagaggggg | tcggcgggga | cagctcccga | ggactaggtc | cgttactttc | gccccatcgc | 540 |
| tgaagagtgc | gcgaaaaatg | tttatccctt | gtcgcactcc | actcgtatct | gggccacaga | 600 |
| tgagcagagg | tggctgctta | tatgtaaaaa | tacgttgatt | ttaagtttct | tatctttaaa | 660 |
| atgccttggc | ccttcttgag | aaagggtttg | tgcctactgt | cctcggagtc | catcttccca | 720 |
| ggcttgccct | ttctcaaaca | ctcatgaccc | cctccagaac | ctttaggggtg | aagggaatt | 780 |
| accacctatg | ggaggggagc | tggaaaaatt | tagaaccttt | ggtggggccc | ctgcaagcag | 840 |
| gagttttgtt | gagtccttat | ttagcaaaaca | cccttttctg | acccagtga | tcagatgcta | 900 |
| aaatatgcac | gcagccacac | acccagcagt | ccttctgcac | ccctgggaat | cgccagcaag | 960 |
| caaaggttgc | tctccccttg | gtagacacca | gctggaatca | ccaggggtgc | ttttacagtc | 1020 |
| ctcccgcgta | gcctggatcc | caccgcagac | ctgttgatca | aactgctggg | agtggaccct | 1080 |
| aggcatcagt | aaattttaaa | aactccccaa | attattgtaa | catggagtct | gggttgagca | 1140 |
| tcactgctct | ggcctattta | ggaacttgtg | gatggatagt | gtcccaggtc | tgtgtgtgca | 1200 |
| tggagaccct | ctcatccggt | acaagaggac | atcaciaaatt | cagctggggg | gagcacaaag | 1260 |
| ttgtgacaga | atgcaaagaa | tgaacaagg | gccgagcgcg | gtggctcatg | cctgtaatcc | 1320 |
| cagcacttcg | gaaggcgag | gcgggtggat | cacctgaggt | caggagtcca | agaccagcct | 1380 |
| ggccaacatg | gtgaaacctc | atgtctacta | aaaaataaaa | aaaaatgagc | caggcgtagt | 1440 |
| ggcgggtgcc | tgtaatccca | gctactcggg | aggctgaggt | gggagaattg | cttgaacaca | 1500 |
| ggaggcgagg | gttgagtgga | gccgagatcg | tgccactgcc | ctccagcctt | ggcgacagag | 1560 |
| tgagactctg | tctcaaaaaa | aaaaaaaaaa | aaaaaaagaa | caaggctggg | acattgcagc | 1620 |
| gttctcaaag | agaaataaag | tagccatgga | gataagaagc | aggatgattt | gggctagatt | 1680 |
| atcagaggta | gagacaagg | agaaatcaaa | gataagtttg | ggcttttgtc | tccagtaact | 1740 |
| gggagcctag | tggccatttt | tgctgcaaag | aggaagctgg | gcaagtgtag | cagtgaggct | 1800 |
| gaagaaaagg | gaattaaatt | ttggccatgt | tcacttgaaa | cgtcttttag | acatcctagt | 1860 |
| gaaggtagct | gcacggagga | tctagtctga | gggttttagt | cagtgtttca | gccgtggatc | 1920 |
| tggggcagat | gaatgtagac | agaccaggcc | agtgatcagg | actgagccca | gacttcacgc | 1980 |
| tgagatatgg | aagttgagtc | agaatctgca | aaggagctga | gcaggagctg | cagggggtag | 2040 |
| gaggaanaat | gggagagtgt | agcccctggg | agtcaaaagg | agcaagcttc | aatgatgtct | 2100 |
| gagggggtga | gaatggagaa | tggaaacactg | gattccattt | ggtagtacac | agatcgctga | 2160 |
| ggaccctgtc | ccgggcagtt | tcctggagga | agaggcaagc | ctggctggag | tgggtagagg | 2220 |
| ggagagtga | ggcgaaggat | tagagtgtat | agagaccagt | gtcttggtct | gaggggagta | 2280 |
| gagacagggt | acaaccacag | ggcagacgta | ggttaaagg | gttttagttt | tccttcaagt | 2340 |
| aatgggcag | atgtattcca | tatacgttcc | cagtgaagg | ccgggtgcgg | tggctcaagc | 2400 |
| ctgtagtccc | agcacttttg | aaggccgagg | cgggtggatc | acctgagatc | aggagtttga | 2460 |
| gaccagcctg | gctaacatgg | tgaacccccg | tctctactaa | aaatacaaaa | attagctggg | 2520 |
| catgggtggc | ggcgccctgt | atcctaggta | ctcaggaggc | tgaggcagaa | gaatcgcttg | 2580 |
| aaccaggag | gcggagggtg | cggtgagccg | aaatcgcgcc | attgcactcc | agcctgggtg | 2640 |
| acaaaagcaa | gacgcagttt | tttggtgttg | tttttttaat | tgccaatgag | gaaaggggaa | 2700 |
| gttctgtgct | aggcgataga | gatccaactg | ttgagcaggc | ctctctgcct | gtggccttcc | 2760 |
| ggccgggttt | cagacgcccc | ggtggccaac | attagagtcc | gcgtagcagt | gtgaggtaac | 2820 |
| ccactgagat | aggtcggggc | tgccggagcct | ggcgagcagc | ggccctctcc | ctggggcttc | 2880 |
| ccttcaatct | ccgggacatt | tccccgacct | ggagctcctc | cgctcaccgc | ccaggcctct | 2940 |
| ctgcagattg | caagttcacc | tgccactacc | gctgccgcgc | gctcgtctgc | ctggactgtt | 3000 |
| gcggggcccc | ggacctgggc | tgggaacccc | cggtggagcg | ggacacgaac | gtggtgagcg | 3060 |
| cggggccgag | ggcgtatggg | aaggggcgagg | atggggcaggc | cacagtgcag | gcattctcga | 3120 |
| gggtgcctcg | ggtgccgcgc | gcaaggagcg | ttctaattgc | cgatttccc | gcggcacaga | 3180 |
| gaggctaatt | ctgcgcgggg | gctgggagg | gagcctggat | tgccggctcc | gcaagtactc | 3240 |
| cacccgctgc | aagcggaccc | ggggcccaggc | tgacccaggc | tccgcgcacg | cgcacttccc | 3300 |
| gcaccttccc | gccctcgcct | ccggccagag | gccactcttg | tgcgcttgcc | cggacgctgg | 3360 |
| cacccgcccc | cgttccctgt | ggtagggtggg | gtctgtgagt | ggagctccgg | agcgatgagg | 3420 |
| tcattcctgg | gggcgaagcg | tgcgtgtccc | cgccccggcg | ttcctgcccc | aatgagacaa | 3480 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gagctagatc | ccggcgatct | acgttttcagt | cttaacgggtt | gcggcgcgggc | tctggccccgg | 3540 |
| gcgcacgcgc | acactgacac | gcgtacacgc | acgcacgcga | ccggggcggtt | ggttggcgggc | 3600 |
| tacggacgcg | caggactggg | ggacggggcg | gtacggctat | gggcgaggcg | gaggcgctt | 3660 |
| ctttcgaaat | gacctggagc | agcacgacga | gcagtggcta | ctgcagccaa | gaggactcgg | 3720 |
| actcggagct | cgagcagtac | ttcaccgcgc | gaacctcgct | agctcgcagg | ccgcgcgggg | 3780 |
| accaggtggg | agccaggggg | tgccggcggg | cgggaggggga | agcggtcgct | ggagctccgc | 3840 |
| cctccccggt | ccgttgccgc | gtcctgggtc | ggtgggcagc | cccaccctcc | tggctacgtg | 3900 |
| gctccccgcg | ggctcctggcc | ggggacctgc | ccgcggaacc | gtgcgtaaga | ccccgattcc | 3960 |
| accgcctaga | tgctgggtgc | cgggggcccc | ttggtttctg | tcacagacag | gttgaacacg | 4020 |
| gaaaaagcag | ctgtatggct | tgtggttagac | ctgagccggg | cattatccag | ctatgactaa | 4080 |
| agccgaccga | gcagtttgga | ctagcacctc | gatttccgcg | ttcgaatgct | cctgctccct | 4140 |
| ccttgggggg | actaggggag | gatgtggaga | gggaagagtc | ctcgccagga | attgagaagt | 4200 |
| atgttttagga | aaacttgaga | ggcagagaga | gattcctgct | ctccatctgc | actcctgtat | 4260 |
| ggagccagct | gagccctcac | ctcttccctg | ttctggcctg | tcaccagctg | ctggaatgtg | 4320 |
| gaagattctg | ttcccttcc | ctagggtgga | tctggagaaa | gatttgggaa | tagataggaa | 4380 |
| agaagtcttg | ttttggacca | taagcattca | ggagcacttt | accacagga | agggggaaaag | 4440 |
| ctagattata | aaatgcctaa | agaggtggaa | aaagagatcc | aggttactaa | cccaggactg | 4500 |
| taaggtgtct | cggaacctcc | taggtatccc | cattatcgga | gaactgtgtg | ccagatgcca | 4560 |
| ttggtgtgac | caccaggctc | agagaaccag | gcctaggcac | caggaaaaag | aaacagggac | 4620 |
| tgtgaagctc | agtatgctg | gcagaaatgg | ggcggaatc | cttattttaag | taaagaaagt | 4680 |
| ggagtttgtga | gtgatgcttc | agataaaatt | ttacaaaatt | ccttacaaa | tgggtggtgc | 4740 |
| tcagcacgcc | aaaatcttag | cccagagctt | gggtgcaagg | gttgagttga | gtgtagacct | 4800 |
| ctgggcttgt | cttcatgtca | gtcagtcctg | agccattttc | cactgtggaa | aggtgggaaa | 4860 |
| accacaagac | actaaccaat | tgaaaaggag | ggctagccac | ggaggtgcac | acctgtaatc | 4920 |
| ccagctactt | gggaggggtga | ggcagaagga | tcacttgaac | ctgggaggca | gaggttgacg | 4980 |
| tgagccaaga | tcgtgccact | gcactccagc | ctgagtgaca | gagtgagact | ctgtctcaaa | 5040 |
| aatagaaaag | gaagccaagt | acggtggctc | acacctctaa | tgccaatgct | ttgggaggcc | 5100 |
| aaggcaggtg | gatcatttgc | aatcaggaat | tcgaggtcag | cctggccaac | atggtgaaac | 5160 |
| cctatctcta | ctaaacatac | aaaaattagc | cgggcatggg | ggtgtgtgac | tgtagtccca | 5220 |
| gctacttggg | agactgaatc | acttcaaccg | ggaggcaaa | gttcagtgga | gccaagatcg | 5280 |
| tgccactgca | ctccaacctg | ggtgacaggg | tgaggctctg | tctcaaaaaa | aagaaagaag | 5340 |
| gctgggcttg | gtgactcatg | cctgtaatct | cagcattttg | ggaggccaag | gcaggcagat | 5400 |
| cacttgaggc | caagagttcg | agacctgcca | ggccaacata | gcaaaaacccc | gtctgtactg | 5460 |
| aaaatacaaa | aaaatttatct | ggccatgggtg | gtgtgtgcct | gtaatcccag | ctactgggga | 5520 |
| ggctgaggca | ggagtatcac | ttgaacccag | aagacagagg | ttgcagtgag | tcgagactgg | 5580 |
| gccactgcat | tccagcctgg | atgagagagc | aagactctgt | ctcaaaaaaa | aaaaaaaaaa | 5640 |
| aaaagaaaaga | ataggaggct | gagaagtccc | aagtatatatg | ttaaaaaaa | agaaaaaaac | 5700 |
| atcagtttta | ggccaggtgc | agtggctcac | acctttaatc | ccagcacttt | ggaaagccga | 5760 |
| ggtgggtgga | tcatgaggtc | aggagttcaa | gaccagcctg | gccaaaatgg | tgaaaccccc | 5820 |
| tctcgactaa | aaatacaaaa | aattagccag | ttgtgggtggc | aggcacctgt | aatcccagct | 5880 |
| acttgggagg | ctgaagcaga | gaattgcttg | aaccacaggag | gcagagattg | caatgagcca | 5940 |
| agatcgacc | actgcactcc | agcctggaaa | acagagcgag | actctgtctc | aaaaaaaaaa | 6000 |
| ccatcagttt | ttatggacag | tggtagagtg | gaggggtgggt | ccctatgggtg | cagaaggga | 6060 |
| attccatggg | cctgctgtgc | atccgactgg | gatggctggt | gaaatcctct | tccagcaggc | 6120 |
| agctttggaa | acagaaaaag | aaactcttcc | tccttttagaa | tcctggaagg | gctgtgcagt | 6180 |
| gcctctaate | caagtctggt | ttctgagtga | agatagggag | gttcacacac | agaagggaag | 6240 |
| gggctggaaa | tgaggtcact | gcaccccagc | ccagggtccc | tgggtcatcc | aggaaggga | 6300 |
| gaaggagcaa | gctttctcat | tgttaggtag | gagctcagag | ccatcacaa | aacaagttag | 6360 |
| caccatccct | gtgccctccc | tgttctgcaa | acaaaatgat | cttccctctt | gccctggcac | 6420 |
| tagagtctgt | ctggcatttc | tcctgcccc | agtactcttc | ccatctgggt | acttcttccc | 6480 |
| gttgggtgtac | tgaacaaaca | catccactgc | tttattcaca | gcctccagcc | ctcattttcc | 6540 |
| agggcccaca | ccatttggtt | ttactaacc | gacaagggtg | cccactgtcc | ccagtaagggt | 6600 |
| ttgtactggg | gtttttactc | cagtgtctct | ctccatccag | gagacctttg | gatacttggg | 6660 |
| gaagaaaatg | agcttaaat | cccacccctc | cccctttacc | tttttccctg | aaggccctgg | 6720 |
| ccttagttct | tagccccaca | tccttgctgg | ctgcagaata | gcagcgggtt | ctgggtaagg | 6780 |
| agcattctgc | taaaacgctc | caccctgctc | cctcatctgt | cctctccatt | tgtccccatc | 6840 |
| agatgggtta | agtgtttaag | gggactccag | ggcggagtca | gggagaaccc | tggctctcct | 6900 |
| gggctaggca | caagatcatt | ctacaggaaa | ccttgtggga | attcttcttg | gacaaaagtat | 6960 |
| tggtcagcgc | tgagcttagc | tgtgtctgtg | acactcgcat | tctaactagg | gcctatctga | 7020 |
| cgtcaacagg | aagtaaggct | gatgcagtg | ggccaaggga | gtctgggaga | agaaagtcgg | 7080 |
| ttcagagccc | tggctgccct | gtccacact | ccacccttcc | ggcaagaatc | cagtccttag | 7140 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| atgaggtggg | gagtgagtgg | tcgagttaaa | aatctctggg | tcgggtacga | tggttcacgc | 7200 |
| ctgtaatccc | agcacttttg | gaggtgaagg | caggcggtac | acttgaggtc | aggagttcaa | 7260 |
| gaccaacctg | gccaatgtgg | tgaaatccca | tctctactaa | aaatacaaaa | attagccggg | 7320 |
| tgttggtgtg | gcacgcgctt | gtagtcccg | ctactcggga | gtctgaggca | ggagaatcgc | 7380 |
| ttgaacccag | gaggcagaac | ttgcagttag | ccaagatcca | gccactgcac | tacagcctgg | 7440 |
| gcgacagagt | gaggcttcgt | ctcaaaaaaa | aaaaaaatct | ttggggccaaa | tctccagaca | 7500 |
| gcacaggcag | gtgcagaaac | ccaccaggaa | gctgcctgtg | tacctctggc | agattggagc | 7560 |
| ctggcctaaa | gctgcctttt | atgcagcttg | ggtcaagggt | aaacatcatg | tcacagtgat | 7620 |
| ttttctcact | atgtgtgaga | catggagaac | tggctccaag | tactactctg | tccactgggtg | 7680 |
| gctggactac | tgatgtgcac | cactctccac | tcctctcacc | ctgcagtggg | tcatggcccc | 7740 |
| gtgccggggc | agaggagaaa | aatgggctgc | cttctccagg | acaaaccctc | actccaactc | 7800 |
| aactaggggtg | ctgtgatcag | aatgtgcaat | tgagggtgtga | ttttactgat | tttttttttt | 7860 |
| tttgagaccg | agtttctgctc | ttgttgccca | ggctggagtg | cgatggcacg | atctcagttc | 7920 |
| actgcaacct | ccacctcccc | agttttgagca | attctcctgc | ctcagcctcc | taagtagctg | 7980 |
| ggattacagg | catgtgccac | cacgcctggc | taattttgtg | tttttagtag | agacgggggt | 8040 |
| tctccatgtt | ggtcaggctg | gtctcaaact | cctgacctca | ggtgatccac | ccgcctcggc | 8100 |
| ctcccaaaag | gctagaatta | caggcgtgag | ccaacgtgcc | cagcctgttt | ttgttttttg | 8160 |
| tgttttgaag | caggggtctca | ctcagttccc | caggctggag | tgcagtgaca | cgataatagc | 8220 |
| ttactgtagc | tgcaatctcc | cgggctcaaa | cgatcctccc | acctcagcct | cctgaacagt | 8280 |
| tgggactaca | ggcacaccac | cacacctggc | taattttttt | ttttcttttt | ttagtagaga | 8340 |
| tgagggtctt | ctatgttgcc | caagctggct | tcaaactcct | gaggatcaag | tgatcctcct | 8400 |
| accttagcct | cccaaaatgc | tgggattgca | gatgtgagcc | accacacca | gcctgatttt | 8460 |
| actttaaatg | agagtccctc | ttcagagtcc | ctcagctgtt | cctggccccct | ggccatgtgc | 8520 |
| cttcagttgc | ccctgcttct | gtgggtatcct | taaggctaca | ttcagtgtctg | aggccctagg | 8580 |
| caggcagcag | agagaagcca | aatgattctg | tctttccctt | atccaccag | agcatgcaaa | 8640 |
| accaggagca | gtgggtgggt | caggggtggc | accagctatg | tatatgtaca | tcagggacag | 8700 |
| ggggccaaaag | gcagtcagtt | tccaaaagact | gccccagagg | ccattttttca | gagaagccct | 8760 |
| gggttctctca | agggccctgt | gtccatgctg | gcccattctg | caggacgagc | ctgtggagtg | 8820 |
| ggagacacct | gacctttctc | aagctgagat | tgagcagaag | atcaaggagt | acaatgcccc | 8880 |
| gatcaacagc | aacctcttca | tgagcttggt | gagttgactg | ctcaggaagg | gggcgtgggg | 8940 |
| aggagcaggt | accagctat | gtgcctgata | ctcagagggg | cacaactgag | gttatcttgg | 9000 |
| gtgggcgcaa | gcagtaattt | gtgcataccc | agcctagccc | caagtagact | gacatctcac | 9060 |
| ctggaacctta | ttatcaagg | ttggtttctc | tatttcttta | gaacaaggac | ggttctttaca | 9120 |
| caggcttcat | caagggttcag | ctgaagctgg | tgcgcctgtg | ctctgtgccc | tccagcaaga | 9180 |
| agccaccctc | cttgcaggat | gcccggcggg | gcccaggacg | gggcacaaag | gtcaggcgcc | 9240 |
| gcacttctct | ttacctgccc | aaggatgctg | tcaagcacct | gcagtgtgctg | tcacgcacaa | 9300 |
| gggcacgtga | agtcatttag | gccctgctgc | gaaagtctct | ggtgggtggat | gacccccgca | 9360 |
| agtttgcaact | ctttgagcgc | gctgagcgtc | acggccaagg | tgggcttccc | acccccacct | 9420 |
| gccctatgtg | aggggtatata | cgcatgcacc | tgagcatgca | ggggctgagc | agctggccct | 9480 |
| gtctctgata | attacttccc | cttcacagtg | tacttgccga | agctgttgga | tgatgagcag | 9540 |
| cccctgcggc | tgcggctcct | ggcagggccc | agtgacaagg | ccctgagctt | tgctctgaag | 9600 |
| gaaaatgact | ctggggaggt | gaacgtgagt | acatagtctt | tagtttcttg | gttgtcacta | 9660 |
| gacaggactg | atgggctgta | gctacagtaa | ggcttgagg | aggaattgtg | ctggaagaca | 9720 |
| agccctgcaa | aacagttcca | ggagtgtata | ggcattgtaa | ctaaagcaaa | ggcttccaga | 9780 |
| ccactcatgc | caaagcctag | ggttgtccca | agaagccagg | aagaattgcc | ttgggtgcttt | 9840 |
| gatctttctc | ggtgtggaaa | atcttctgga | gatgcaggag | tccatctaata | gacatgagga | 9900 |
| ggcccccttc | agacttttta | cctggaagct | ttctggctcc | aaggatttag | gcctgtggag | 9960 |
| tgaaattaga | ctcagaatat | gcctgacctg | tccacaggta | attgggggaac | atctgacttg | 10020 |
| gttgtctcag | taagggtgacc | gtttttagtag | gcccattctt | catacaaaact | gctgtcaggg | 10080 |
| atcctaccag | agatcattca | gccaagagcc | tgacatcaga | aagcccagtc | ctagcttgtg | 10140 |
| tgaacatgag | gtgctagtct | tctctgggga | gggtctgctg | gcttggccat | cccttctgca | 10200 |
| gcctgtacac | tccccctttg | ccccttgtag | tgggacgcct | tcagcatgcc | tgaactacat | 10260 |
| aacttctctac | gta | | | | | 10273 |

<210> 12417
 <211> 13361
 <212> DNA
 <213> Homo sapiens

<400> 12417

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| gcttttttcc | gggatagcga | tggagacgcc | gggagcatca | gcgtcgtcct | tgttgcttcc | 60 |
| cgccgcgtcc | agggcccccga | ggaagcgcca | ggcgggagag | gctggggctg | cgacgagcaa | 120 |
| gcagcgggtc | ctggacgagg | aagagtatat | cgaggtacga | cctcgggtgcg | gacgcccggcg | 180 |
| acttctgggc | ccatcctctg | cttcaagctc | ctctcagggt | ccctctctcg | ggtgttgaca | 240 |
| ctccgtctcc | tcgtggaagt | ggaggagccg | ggtgtggacg | gtcccacgag | tcaagtaaac | 300 |
| agggcagagg | aagacgtctg | tgggtggaaga | ggctgtagta | gtgttgctcag | ggaaaagaga | 360 |
| gagcggctct | ctttgtatgg | gacgggggtc | agggaaagaa | gattttctgt | taaagtgtga | 420 |
| gtaggagttt | gacaaactgg | aaggatgggt | gcaaagaggg | ctttctaaag | agcgggtggca | 480 |
| gcaagtgtga | atgctggggg | tcctggaaaag | agaccgcagt | tgtgacagca | tctcgagtga | 540 |
| gtggacctgc | gtcggccccc | cacacgcaca | cagaaggagg | agctgaaacg | gggattggcg | 600 |
| gaagtcagtt | tggtttttaga | cctgttttaat | tcgggacacc | ttttgggata | tgtagatgga | 660 |
| tggcttttaac | gggaggttgg | gtgcccagat | atgcagctcg | ggagcaaggt | ctggctggag | 720 |
| gtgcagactt | gggaatctca | acttgtggta | gtgactggct | gaagttactc | aggaaaaagg | 780 |
| tttatatttt | ttttattttt | tgagacggag | tctcgtctcg | cgtccaggct | ggagtgcagt | 840 |
| ggcgcgatct | cggcttactg | taaccaacct | ctgctctctg | ggttcaagcc | attctcctgc | 900 |
| ctcagcctgc | cgagtagctg | tgactacagg | tgcccggcac | cacgcccggc | taatttttgt | 960 |
| attttttagta | gtgggtgggg | ttcaccatgt | tggccaggct | ggtctcgaac | tcctgacctc | 1020 |
| aggtgatccg | cccgccttgg | cctctcaaag | tgctgggatt | acaggcgtga | gctaccatgc | 1080 |
| cccgccagga | gaaaggttta | gattggaaat | agaaagtcat | gtgtggaatg | aaagtgacaa | 1140 |
| caccacatt | ggtctggcct | gtggggagcc | agcaatggag | aatgagaatg | accagtttagc | 1200 |
| aagggcgaga | gagaaggggt | tcacggactt | cagaagagtg | tttagtaatg | ttagaggttg | 1260 |
| cagcatggct | accatatggg | atgctcaacc | ccactgaaa | gtgccctcaa | gctccctcaa | 1320 |
| tccagcccca | gtcattgggg | aagtagaatt | tgaaggaggt | tcagcaagtt | ccttagcatg | 1380 |
| tacagcagtg | gacctgtgag | gcaggagcac | ccagactgca | gctccgactt | tcttttttct | 1440 |
| tttttttttt | tttttttgag | acggtctcgc | tctgtcggcc | aggctggagt | gcaggggtgt | 1500 |
| gatcttggct | cactgcaacc | tccgcctccc | gagtttaagc | gattcttctg | cttcagcctc | 1560 |
| ccacgtagct | ggaattacag | gtgcctgcca | ccacgcccgg | ctaatttttg | tatttctagt | 1620 |
| agagactggg | tttcaccatg | ttggccaggc | tggtcttgaa | cttctgacct | catgatccac | 1680 |
| ctcccttggc | ctcccaaggt | gttgggatta | caggtgtgag | ccaccgcgcc | tggcctctga | 1740 |
| ctttcattct | gatctctcct | tgcagggcct | ccagacgggt | atccaaaggg | atttctttcc | 1800 |
| tgatgtggag | aagctccagg | cacagaagga | gtacctggaa | gccgaggaga | atggagactt | 1860 |
| ggaacggatg | cgccagattg | ccatcaagtt | tggctctgcc | ttgggcaaga | tgtcccggga | 1920 |
| gccccgcgca | ccctgtatga | ggaccctgtg | ggtggcggag | aggggaaagc | ctgctgaact | 1980 |
| gtcgcttcag | gtcactcta | attcttatcc | ccctctcttc | ccctagatgt | gactccagcc | 2040 |
| acatttgaaa | cccctgaggt | gcatgcaggc | actggagtg | tgggcaacaa | gcccaggccc | 2100 |
| cgcgcccgag | gcctggagga | tgggtgagtga | gggtgccctc | tttaagtcac | atggtcagga | 2160 |
| ttgcctggga | atcttagcct | gtgaggccct | gaggggggtg | tccagagggc | tgcaggccac | 2220 |
| atcttgttcc | tgaggggtct | tgcgtaaata | gcagcctgtg | aagtc aaagg | acattggtct | 2280 |
| aggtggtaga | acatctgggt | ccagctccca | ccatctgtgc | gcctctgtga | aatgggactc | 2340 |
| tcaccagctc | ttgctggcct | ttctgtctgt | ttccagccct | gccctgtggg | cttcattggat | 2400 |
| gttggaaggc | cccttttgtt | actatcctga | agatgcctca | gggcctctcc | atttgtttcc | 2460 |
| ttcatgttgg | tcacttccca | gataactgca | tggctcactg | tgtttcttcc | tgtagatctc | 2520 |
| tgcataagtg | ttacctgttc | agagaaactt | ttcttgacct | gccagtgtga | agtcacaaca | 2580 |
| ccactgggtg | tctgtggcct | ccagcctggc | tttggttttt | catcacaaga | cattttatatt | 2640 |
| tatttaattt | cattttatatt | tttaattttt | gacacagagt | ctcgtctctg | cacccaggct | 2700 |
| ggagtataat | gggtgtgatt | cggctcactg | caacctccac | ctcccagggt | caagcaattc | 2760 |
| tccttgccct | agcctcccaa | atagctggga | ttacaggcgc | ctgccaccac | tcctggctaa | 2820 |
| tttttgtatt | ttgtagtaga | gacgaggttt | tgccatgttg | tcccggctag | tcttgaactc | 2880 |
| ctgacctcag | gtgatctgtc | tgcctcggcc | ccccaaagtg | ctggtattac | aggtgtgagc | 2940 |
| caccgcgcct | ggccaagaca | taacgtttta | aaggcatttc | tgtttatggg | ctctttccct | 3000 |
| aattggcatc | ccttgacaaa | gagcagaagc | tttgttttgc | tttcatctgt | atgctccgtg | 3060 |
| ttgggaacag | cacatgtggg | gttgtggggc | ttgcacagat | acacatggaa | cagatgaaag | 3120 |
| agttgtcatc | ttcagcatgt | ttgctggggc | acacagctct | atatggtaac | atcgtgactt | 3180 |
| gatgggggag | tcggttttagg | aaagggcact | ccgagtcctg | ttgaatgcaa | gtgttctgca | 3240 |
| cgccatggga | cttctgcgtt | gtcaggccct | cttttcatca | gtagtagaat | gtcagtgcat | 3300 |
| gtatagacaa | acgagacact | ctttcttata | agttgttaga | ctccactgtg | ctggagttagc | 3360 |
| acagatgtgt | tgtgtgtttg | cacaaacatg | caaacatgat | actttttgct | ttacaatoca | 3420 |
| gctttttcgg | ccattaacac | agtccttgtt | gtccttgaag | cttgattatc | tgttgaaatg | 3480 |
| tagcttgtgc | atcacagggc | aattttgtaga | tttttttctt | ctcctttttt | ttttttttcc | 3540 |
| tatagagatg | aggtttcatt | atgttgccca | ggctgggttt | aaacttctga | gctcaagtga | 3600 |
| tcctcccacc | ttggcctccc | gaagtgtctag | gattacaagt | gtgagccatc | atgcctagcc | 3660 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agtttgcaga | ttttcaatac | ctgtacacct | acatgccagt | aaatatagga | atccttttca | 3720 |
| gaacctaaagt | ggtaggaacc | atcatcatgt | ttacaggtga | ggaaactgag | gctcagaaaag | 3780 |
| gcagtcactt | ctgcaggctc | cagagatggt | cagggtttca | cttcttatct | ctctgagatg | 3840 |
| aatagagttt | ctgacccttg | tcctcatccc | gtgggtcttg | agcttgtagc | cactgtgcct | 3900 |
| tgtgcatagc | ctcacgtgta | gcagggtggc | aggactgtca | ctagacttga | aggcagagct | 3960 |
| ctccagggtg | ccccaccgaa | gtttgcacca | ccacacgcag | caccagggca | ccacctcagt | 4020 |
| gggagtacca | ctttccatgg | tggcagggtt | ggtcggaggg | gggggtgttt | gggggtgttg | 4080 |
| cttagcacct | gtgaggcccc | atccagagga | ctaagtcata | tgagatccct | ggaattgggg | 4140 |
| ctcgctctca | ggtcaggatg | attaggcgat | gaccaccac | ctgtagtaca | ggtaccagga | 4200 |
| agagaagagt | gggtaaggta | aggaaatcct | agggagttag | ggagagcccc | agggatttgg | 4260 |
| aggcctggca | cccacaggcc | tggcaccact | ttgggtgggg | aggagcctgc | ctgtgatcac | 4320 |
| gagctcttgc | tctaacacct | gtattgtctt | ctccagctctg | aatcagacca | cgtaattccc | 4380 |
| ttggcatcca | gcacatgagc | agagctggcc | ctgaatctgt | agggtaccac | ctgagggtc | 4440 |
| tctgggcagt | cagggtgggt | ggatttctgcc | cccgtgggga | gtccttggca | gtgtgggctt | 4500 |
| tcatgggcag | aagccaggac | caggggagag | gattccagcc | ctgcatgttg | ggggctatga | 4560 |
| ttcctgggcc | tgggtgtcct | cctctttcct | gactgcaaag | ggtgctgtgt | tcctcctccc | 4620 |
| gcaaccctta | agcaggagag | gctggagagg | aggaggagaa | ggagccgctg | cccagcctag | 4680 |
| atgtcttct | gagccgctac | acgagttagg | acaatgcctc | cttccaggag | atcatggagg | 4740 |
| tggccaagga | gagaagccgg | gcacgccacg | cttggtctta | ccaggctgag | gaagagtttg | 4800 |
| agaaggtgtc | tctgggtgtc | ggggtgtcac | ataggcgtag | gcacctctg | tgggtggttg | 4860 |
| ggagccccag | ggccatgggt | acaatgccca | ggggcatctc | tgaccatcac | ttttcccat | 4920 |
| gtgattgcag | aggcagaaag | ataatctcga | actcccgta | gcagagcacc | aggccatcga | 4980 |
| gagcagccag | gccagtgtgg | agacctggaa | gtacaaggcc | aagaattccc | tcagtacta | 5040 |
| tccagagggg | aagtggcggg | cctcgcagcc | aaatggggag | gtgttgggta | gagctgtgtg | 5100 |
| tgtctggctg | tggttggagc | agccttccag | gtgtgtatgg | ccgtgcccc | ttgcagtttg | 5160 |
| ggcttctgat | gggtactggt | ctgtctaaag | gtggacaggt | ctgtgtgagg | tcagcagtga | 5220 |
| gtgagacctt | ctccagcggc | actggggcct | gcgttctgct | caatgctttt | gttcatctgg | 5280 |
| gagtgaactt | gccgagaagc | gagctcctca | tgctccttag | gctgctgccc | ttctgacacc | 5340 |
| tgctgctacc | tttgcttcgt | ctgccaggtg | tccttagcga | ggagcagctg | tttaagaagc | 5400 |
| cccggcaggt | ggtacataag | aacacgcgct | tccttaggga | ccccttcagc | caagccctga | 5460 |
| gcagggtgcca | gctccagcag | gcagccgccc | tcaatgcccc | ggtgagcagg | cgggtcagca | 5520 |
| gggcccgcag | ggccagggtg | gacagggctg | cctgggggca | ggcatgatct | ctcccatctc | 5580 |
| tttgagcttg | gcagagctca | gtgagtggaa | ccatctgggg | ccctgtgcgg | caggatcctg | 5640 |
| agtctttcct | tggccccagt | gggcttccat | tgaacactgc | cttggtcaca | caggttctgt | 5700 |
| aggctccagat | ctgtgccagc | tcccttgatg | gcaggggcag | gagagaaaag | ggactgctgg | 5760 |
| gagtgaagcc | aggctggcag | ctgcacgccc | acacaccggg | caggggaagcc | agagagccgc | 5820 |
| agagggagcc | cagccccagg | gggtggctgg | ggtgggacag | gccctgggtt | ggcagagagc | 5880 |
| agaggctttc | tgagtctggg | agcaagacga | gtagatactc | tctgatggtg | actgtggcag | 5940 |
| tcacagggtt | gaagtgggga | aggcaggaag | agactagagc | ataagcattg | cctgtcatca | 6000 |
| gcattgcctg | tcatacagcat | tgccccctgc | aggggcctgg | cgtcagcatc | ctctggagtt | 6060 |
| gctgggatag | gcgcagctcg | agtggaggcc | ctggcacctc | cctggatggg | aggagggggc | 6120 |
| tttccttgct | tgggtaccca | ctttgacagg | ccctcaagggt | cttttggggg | gttggggcag | 6180 |
| gggcccctccc | tctctttctc | caagaaggct | gccaacccca | gagccccagc | cttgccctga | 6240 |
| ggagaggaag | tgtttccagc | atgttcccac | gtgtttgccc | accggccagc | tgctcagcgt | 6300 |
| gggctgcggg | ccccctgatg | ccagcctctc | tgcttggttc | agcacaacaa | gggcaagggtg | 6360 |
| ggccccgatg | gcaaggagct | gatccccag | gagtcctctc | gagtggtggg | atttggaatt | 6420 |
| gttgccactc | cttccccctg | ccctggtgag | aaaagtgcct | actggcaagt | gggtctactg | 6480 |
| ctgggactcc | ctgggggagg | tgggtctctc | agtcggccct | ggccactcct | ggcctctacc | 6540 |
| tggcctgccc | cacaccttgt | gtaactcagg | gacctggtct | cctgtctgta | caaggcccta | 6600 |
| gaggccaggt | gtccaggctg | cttggggccg | tgggtgggct | ggactctcag | gcagacctgg | 6660 |
| cctgagacat | cctgggatga | cgtgtcctgt | cctggtcctt | actgtgatgt | cagtgggtgg | 6720 |
| gggtgtgtgc | acagtgccta | tgagtctaag | tctacctagc | actgcaggga | gggagggcca | 6780 |
| gcacctcagt | ggaggtgaaa | ctcagggtgg | cttgtggcat | gcgtgggtgt | ccctctgcac | 6840 |
| tctggcctct | gtgctcttgg | gtgctgggtg | tgtgtcacac | gccagggcat | gtgaaggcac | 6900 |
| cacaggtttg | cctggggttc | taggaggttc | gggagccctg | gaaggcctga | gtgtctcctc | 6960 |
| ctgcgtggct | gggggagacc | tcccagaggc | tgtaggcta | agcacatggc | tgtagggcct | 7020 |
| tgagcctgcc | tcgggcctgc | tgggagcttg | gcatttccct | ttcggaggat | ggaggtgcca | 7080 |
| gggttccaga | gtcctgggga | aggagagagg | gctagctgcc | tgccctcgta | ttagctggga | 7140 |
| tgcacattgg | gtgaacaagc | tgtgactgga | ggggaggggtg | gtggggagtc | ctctggcctg | 7200 |
| aggtgggtttt | gggctctttg | tctgcagggtg | tgaacgagtc | cccgatgatg | acctgggggg | 7260 |
| aggttgagaa | cacacccttg | agagttgaag | ggtcggaac | gccctacgtg | gacaggacac | 7320 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ccggcccagc | ttttaaggtg | ggttgtggtg | atgggggaac | tgtgtgcgac | cggggtggac | 7380 |
| acctctggag | ccttgagtgc | ctgtggctca | ggactgagca | ctgggatcgg | ccccagctg | 7440 |
| ctgacgggca | gagtgctggc | ttttctgaat | gccagggtgc | tgaaggcagg | tgtgggtggg | 7500 |
| tggacctgtc | acagagggat | ttgggggtgt | aagggtctag | acaccaaggc | agggagtggc | 7560 |
| ttgggccctc | tggatcctgg | aggccgggtg | ctgttcatga | atgaggcagg | atggtcacag | 7620 |
| acacgtgagg | agctctgcag | gcctgagggc | cataggacga | ggctgtgtgc | ttgtagagaa | 7680 |
| ggccccctgg | tacagaacac | gattgggaca | cgctggatta | cacggctcaa | gcctgggtgt | 7740 |
| gtaggagtgg | tcagggtgga | gtgtgtgagg | cccggcacag | accaggggag | gctcttcgtg | 7800 |
| ggctgggtca | gatacaacag | gcctccccat | accactgcgg | gcctttcccc | agaatactta | 7860 |
| gtacaggtaa | cccatgtcca | gacaaaacat | ggggagaggt | tctggttacc | ttggttctaa | 7920 |
| attgtctggg | acacaaggat | aaccaaggca | aacgtgcgag | agggataatg | aagaggatgc | 7980 |
| cgtgctgtcc | aatgtgagag | cgcaaggcaa | gggctgaggt | gcttctgagg | tatgcctgcc | 8040 |
| actgcttccc | gagtcctccag | gccaacagta | aacagataaa | ttctgaaaca | aaccatgatc | 8100 |
| caagtcagaa | tttggggccc | gataaagatg | gcaactcaga | ttgcaactga | tagcagagta | 8160 |
| tttagaaatg | aaggagagctg | ggctctcagg | atgtgtagca | gcatacattg | tggaaagggtg | 8220 |
| aaaaggttac | atgtaaaaac | aataaccata | aaacaaccag | aagaaaaatag | tggcgaatat | 8280 |
| ttagttttgat | ttttgggttc | aagtgtattct | cctgcctcaa | cctcccaagt | aactgggact | 8340 |
| agaaaatagt | ggcgaatatt | tagttttgatt | tttgggttca | agtgattctc | ctgcctcaac | 8400 |
| ctcccaagta | actgggacta | caggcgctgtg | ccaccacgcc | cggcttattt | ttgtattttt | 8460 |
| agtagagatg | gggtttcacc | atgttggcca | gactggctctc | gaactccttg | gccagactgg | 8520 |
| tttcgaactc | ctgacctcgt | gatccacca | cctcagcttc | ccaaagtgtc | gggattacag | 8580 |
| gcgtgagcca | ctgtgcctcg | cctctttttt | tttttttttt | ttttttttta | cagatagggt | 8640 |
| ttcactctgt | tgccagggt | ggagaacagt | ggtgcaatca | tagctgattg | taacattgag | 8700 |
| ctcctgggct | caaataacac | tccagcctca | gcctcctgtg | tagctgggac | taacagcata | 8760 |
| caccaccatg | cccagctaat | tttgtgtgtg | tgtgtgtaga | aatgaggtct | tgtcattttg | 8820 |
| ctcaggctgg | tctccaatgc | ctgagctcaa | gtgatcctcc | caccttggcc | tcccaaagt | 8880 |
| ctgaggttcc | aggtgtgagc | caccactccc | agcctgtagt | ctaactctta | gttaggaggg | 8940 |
| acttttctaaa | cataaaagca | aaggaagaaa | tcacaaatga | aaataacaaa | tacagcagaa | 9000 |
| aatgttataa | atgaacacaa | tgtaaatgag | tgaaaaaaca | tgtgcacagc | gtagcacagt | 9060 |
| tgacttgaca | caaggctctg | gcaagggtct | tctgagttaac | agcagcagaa | aaggaaaatg | 9120 |
| agcccttga | gagcaaaata | ggccacaggc | acacggggaa | gcgcccga | tacagagcgc | 9180 |
| cgataaagac | agagatgttc | actctgataa | tcagggaaac | actaaaacag | actgcttttt | 9240 |
| cctgagagat | tgtcagaggt | catggttttg | ggaggaacac | gaagacaggt | gaggagtgtc | 9300 |
| gcgccttggg | caggtcaggt | gggggtttgg | gctttccagg | ggcttttagt | gggaggtgat | 9360 |
| gggttgtggg | ggttttgtag | gcaacaaaga | gaggctggca | cccaccacag | tggctttctg | 9420 |
| tgtgaggggc | tgcttgccgt | gtggcaggcc | tggcgagct | accacacac | ctgctacctt | 9480 |
| gtagatcctg | gagccaggcc | gcagggagcg | gctgggtctg | aagatggcca | acgaggccgc | 9540 |
| tgccaagaac | cgggccaaga | agcaggaagc | cttgcggaga | gtgacggaga | atctggccag | 9600 |
| gtgaggggccc | gcctggctgg | tggggaagtg | cgagggtggc | tctggcctgc | tcctgttctg | 9660 |
| ccctgcccct | gaccgtgtgg | aggcatggcc | cacgcggcag | agtccagggc | aggctccgcg | 9720 |
| ggttctgcag | tgggtactgt | ggcagctcct | ctatccagag | catggccgca | catggacagg | 9780 |
| atgagaggcc | ccctccatct | tctcttttct | ccacgtctct | tttgacctgt | ccctaagagg | 9840 |
| catcttttag | cgtgtgtgtc | tgtctgggag | tttcatcagc | cctgtggaga | gagtcacgt | 9900 |
| tccccttgga | gaggggtggg | gactccaact | ctcagaggcc | tgggggtgca | ccccagcccc | 9960 |
| cacagccaag | ggcgggtgctg | ctgttttgacc | tcagggtttga | cctgagcgct | gctgttttgac | 10020 |
| ctcagggatc | ccccgcattt | gctgccatgc | tggcagttacc | atcctcctca | gctcagagt | 10080 |
| actgtgtctc | tgcccaggct | cttccctggga | gccaggagag | gccctgtctg | cggcagctct | 10140 |
| cagcccacct | aaccctgcct | ctctcaccca | ttcctccacc | ccagcctcac | ccccaaaggc | 10200 |
| ctgagcccag | ccatgtcgcc | agccctacag | cgcttctgtg | gcaggacggc | cagcaagtac | 10260 |
| acagaccggg | ccctgcgggc | cagctacaca | ccatccccag | cacgtctcac | ccacctcaag | 10320 |
| accccgccca | gtgggctgca | gacccccaca | agcacaccgg | cgcttggtct | tgccacacgc | 10380 |
| acccctctca | cacaggacce | ggcctccatc | acggacaacc | tgtctgcagct | ccctgcccgg | 10440 |
| cgcaaagctt | cggacttctt | ttagagccag | gcctgggctg | ggctcataga | cgcttcacag | 10500 |
| agcctgcagg | gcagctgtac | acccagcaga | ggactccagc | cttctcgggg | cccaggcctg | 10560 |
| ggccagaagc | tgttgaccat | accaggagtc | actggagaaa | ggggctgtgc | tggggccaga | 10620 |
| ctggcacaag | gcactcgtgc | ccacaccaca | ccccaggcc | ttgccaaagt | gtttgtgtgt | 10680 |
| taattggccc | cttgaactgt | cattaaagaa | cacctaggta | cagtctgggg | ggttgcctct | 10740 |
| ccatcttgct | ccccacacga | gccctagcct | tgccctgggg | cctgcacac | gtctcaggac | 10800 |
| tgcggggctt | gaagcgaggg | gccccccagg | tgaggaagct | gcagggtggg | cggctgtggg | 10860 |
| agcaccgggt | gactggcggt | gctttctcgc | gcactcggaa | cctgtgttct | gagttgagct | 10920 |
| cacatcctgc | agtgtcttct | gcttctctgg | ggggatatga | aggagaaacg | gagcccttgg | 10980 |

| | | | | | | |
|------------|------------|------------|-------------|-------------|-------------|-------|
| agattgtacc | cttaggttcc | cctgcggttc | tgggccccagg | tctgcagcct | ccactctggg | 11040 |
| cttgccgggt | gtgaggtgcg | ctggttatag | gactgtgtgg | gggctgcata | tcaggtgatc | 11100 |
| tcagctatca | ccttctccca | gcacctggct | tccagctcat | ggggtgggac | tatcccactc | 11160 |
| accctctgc | tataggcact | gcccattcta | tgctgctggc | cctggcctca | cctgggtcact | 11220 |
| tccaccaaca | ggagctccca | gataacagtg | ggttgctgga | cagatcaggc | tgggactctt | 11280 |
| aaggggtggg | ggacgtgggg | ccttcagtgc | tttatcccct | aggaaaggg | gcacgttatc | 11340 |
| ccaagggagc | ccccaggaag | tggggaggga | ggggggagga | gcatgtctag | gtgctgacca | 11400 |
| cctggagcac | ttggccagca | agtggggcgc | atgcttttgg | agcaatgggt | gaccacgag | 11460 |
| gaagcacaaa | agaccggcca | gtgtgccatc | atcaagggct | gctgagcagc | ttgaagagcc | 11520 |
| actgggtggg | gagggcacac | ggggagggtc | cagctggggc | tgcccctgga | ggacagggca | 11580 |
| gggaacttga | gggctgagga | cagaaatctc | acatgactcc | aggaaataga | ggaagaggag | 11640 |
| gatgctgagc | gagggattgt | gagggagtgg | gggtagggtc | gagggggctg | aactgcagga | 11700 |
| agccaggggg | agtcgtggac | cactggagct | ggccagcccc | agggcattgg | ggacaaggcc | 11760 |
| aggtcagagg | gagacagtgt | gggcctgggt | ggtggaccct | ggcagaggcc | ctcttgtccc | 11820 |
| ccacaaggcc | aggccacact | gtgattctgc | ctgtacctga | gcatctgtcc | tgtgtctcta | 11880 |
| ggccggagac | cactgtgtgt | caggtggggc | ggttggttga | gtcccagaga | aaaacactcc | 11940 |
| tcactgggca | ctcttgatgc | ttgcacacac | cctgtgggtt | at ttgggtgg | cagtaaggaa | 12000 |
| cgtctttgct | gctaagtgga | agaaagctaa | tggaaagcta | tcaaaatagt | ggtttaattg | 12060 |
| acgaatttta | cttgcacctg | tgcttcttc | agatcttacc | tgctacttta | gtttacgtga | 12120 |
| aggccgactg | caccatgcc | cccaaccccg | acccccacca | cacacaacgg | ggccattgtc | 12180 |
| atgctaggtg | cttgcttttc | ccacctcagc | tccggagatg | tgatgggtct | tggccctgga | 12240 |
| ggtctcggcc | agcctgtcct | ccatcctgtt | ctcgttctcg | ggcaccacca | gcagccgggtg | 12300 |
| ctgggttttg | gctccaagct | tgtggtcggg | ccggtgggtc | ggcctcaagc | ctgtcttggt | 12360 |
| gtccagtttg | cactcagcgc | ggtacttgcc | ctccccctcc | ctcttgaagg | aggcagaaga | 12420 |
| cgtggctttg | ggcttggggg | gctgcagcca | cgagtggctg | aggatctcat | cgatgtggag | 12480 |
| ccgctgggtg | acgtcgggct | gcagcatgcg | gtagatgagg | tccttgcact | cgcaggtcag | 12540 |
| gttcttgtag | cgcgggaagt | ccacacgggt | ctccttctgg | atacgcagca | tcttctctgat | 12600 |
| gtcggagtcg | tcataaggga | tggagccgca | gaccatgatg | tacaggatca | cgccagggtc | 12660 |
| ccagatgtca | tacaccttgg | gctggtaggg | gatgctctgc | agcacctcgg | gggtgcata | 12720 |
| tgctgccgac | ccgcagaagg | tcttgctgag | gatgatgctc | ccattgctgt | ccccgagcca | 12780 |
| gcgcttgtag | aagccaaagt | cagacagctt | gatgttgaag | tccttgctga | ggagaagggt | 12840 |
| ctcgcaactg | aggtcccggg | ggacgatgtc | caggtcgtgg | cagtacttga | cggcggagga | 12900 |
| gagctgtcgg | aacatcttgc | gtgccacgtc | ctcatgcagg | gtccctggc | acttgatgaa | 12960 |
| ctcgaggagg | tcgccttgg | cgccaagctc | catgatgatg | tagatccgtc | cgtcagagggt | 13020 |
| ctcaaagatc | tcgtaagtct | tgatgatgga | gccgtgggtg | acagttgcca | ggatgtccat | 13080 |
| ctcccaggga | aggaatctct | ccacaaagtc | agtaggtgtt | ttcttgcggt | cgatgatctt | 13140 |
| gacagccaca | ttgaacttga | ggcgctcaga | gtaggcagat | ttgacttttg | cgtaggaacc | 13200 |
| cttgccaaga | ttgatgccta | cgatgtaac | cttcttctt | aggactgtgg | catcgtccat | 13260 |
| ggtgccagga | gcgactggcg | ccgctgccgt | ctacatcccc | ccgtcatgtg | ggccagcagg | 13320 |
| cattgtcctc | atttacacta | ccggaggcgt | ctggctgggc | t | | 13361 |

```
<210> 12418
<211> 919
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|-----|
| <400> 12418 | | | | | | |
| ggctgagggga | gaacaggggtc | tctggaaccg | tgggaagccag | gctggtcttg | caggagcacc | 60 |
| cactccccgc | ccgctggaag | gaagcctgtc | cccaggacag | gactctggtg | gccctgctgc | 120 |
| tgctgcattg | gtttccctgt | cacaagtcaa | gctggagggg | aggcggccca | cgtccagcct | 180 |
| gtttgcatca | cctggctgtg | gggactgacc | ctgcattcgt | ctttgtccca | ctaggggtggg | 240 |
| tttctctgcg | cttctttggc | tatgaagaaa | agcaccctca | gggctgtgtc | cttgggtgtg | 300 |
| taggacagtt | gtccctgaca | gtcaccacga | caggcctgca | tagcacccca | gttacacaga | 360 |
| cagatttcca | cagcactgcc | ttaccattga | gcacatagtt | aaatctaggg | aaatcagtgc | 420 |
| ccagacatca | aagctagaaa | tgaaacatgg | tcagcaggag | ccttgcatgg | gcttctcttt | 480 |
| tgctggagca | agccaaaata | ataggaacgg | ttttacattc | ctagtgccag | gacccatctc | 540 |
| gggtcgacaa | aatctgaaga | caagttaagg | gaacaggcag | ctgtttgaat | agatcaattg | 600 |
| gatagtctaa | ggcagctctc | tggaccaagc | tgtaaaggag | atacatacga | aataatcact | 660 |
| ccggtaccac | agtagacagg | ccttgaaggc | actggggccc | ttttaatcgg | acttagcaag | 720 |
| catttttttt | gcctctgacc | ttctccttgg | aacaaaatta | gttaccagta | gacttaggtg | 780 |

<222> (1624)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1644)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1678)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1679)
<223> n equals a,t,g, or c

<400> 12421

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gcaaaggcct | tgcaaggatc | ttaaccgaaa | gggggagggg | gaaggctcgcc | aacaaacggc | 60 |
| tgagctcaca | atccggggccg | gggcgtcccc | caacctccat | ggagagagct | aggctggagc | 120 |
| cgccgcctca | gccgcaccct | ttgagtcgcc | ctccgtccct | gctgccggtc | gagggcacct | 180 |
| ccttttgggc | agcggccgtg | aagacccttc | cgctgccgcc | catgctgtgc | gcggccgcca | 240 |
| ttgcgaccgt | ggcctcctcg | tgtaggagg | gtttggtgcc | gtgtgcggcg | cagcagctgc | 300 |
| tggaggtgaa | gctggagcag | gtgttgctgc | taccacagcc | ccacgttcct | ggcaagggcg | 360 |
| ccgcttcctc | tcccagcggc | agttcaggcc | cgacctgcgg | ctcctgctgc | cgccccgctc | 420 |
| ttccgagggc | gccccctgta | ggccccgagtt | acacccgggtg | cagccccggg | cgctgcacgt | 480 |
| caaggccaag | aagtaggagc | taggggcttg | cctggacgca | tcggtgaggc | ctcggggggc | 540 |
| cgtggagacc | ggtcgtagag | cctccagggc | ggtaagttg | gaaggcctcg | ggccggccct | 600 |
| cgactacttc | cgagggaacg | agaagggcaa | gctggaggcg | gaagaggtca | tgagggacgc | 660 |
| gatgcagggc | ggggaaggca | aaagctcggc | ggccatccga | gaagggtgta | tcaaaacgga | 720 |
| ggaacccgag | agactcctcg | aggactgcag | gctcggcgcg | gagccccgct | ccaatggcct | 780 |
| ggttcatggc | agcgcggagg | tcactctggc | cccaacgtcc | ggtgcctttg | ggccgcacca | 840 |
| gcaagacctt | aggatccctt | tgacgctcca | cacggtcccc | cctggggccc | ggatccagtt | 900 |
| tcagggagct | ccgccttcag | agctgataag | attgaccaag | gtccccctga | caccagtgcc | 960 |
| tactaaaatg | cagtccttac | tggagccttc | tgtaaaaatt | gaaaccaaag | atgtcccgtc | 1020 |
| caccgtgttg | ccctcagatg | caggtattag | acagcagggg | agtcgggttt | tcaaaaactgc | 1080 |
| gtctgtgttg | cccatagctg | ttttgtcagc | agttcccaag | tctaaactac | aaaagtaaag | 1140 |
| taatggaact | gattgttttc | agggcagagt | ctgcacaggt | atcacttctg | atcgacttgt | 1200 |
| acatatagca | gtaaaataca | cgaatgcctt | caagattctc | aagtattttt | taaaaaatcg | 1260 |
| attttaaggc | ccagtattta | gataggacta | atttttgtac | acaaaaatag | aaatatctct | 1320 |
| gctagacagc | gcatagccct | cagtttatat | gtacaaaata | atcaagatta | aaaatatgtg | 1380 |
| agtataacag | ctcagtactt | ttatatgtat | caagaaatag | aagaaataat | ggtgttgaat | 1440 |
| gaaaaaagtg | attataatta | aacaggaaaag | tttataccga | ttatagaggc | tatctttaaa | 1500 |
| aatgaataat | aaatattcta | gcagaaaaca | atacgtgatt | caatgtaata | ttttagggtt | 1560 |
| tattcctctg | aaaggtaatg | acttatagaa | atatgaaaaa | gaatanncag | gtaggggaant | 1620 |
| gganggcgca | ctaaaagtag | ttanttttta | gagatggaaa | tgagctaagt | tagcagcnna | 1680 |
| gtcaagcaag | taccacaata | atgtatttta | ttgtgctagt | tcagtattcg | cagatatata | 1740 |
| gtcagcaaat | tcttatttta | agatttagtt | cacacagaac | gcttgccgag | tgaacatctt | 1800 |
| ggaaagtcac | attaatcttt | ggttcataat | tttattaact | ttatgtttta | ttgttttttt | 1860 |
| aattttctgt | gttgattctt | cctctccact | ccaccctgtt | gcttttatct | ttagttagtt | 1920 |
| ttagatttta | tttttgtttt | ctaaaggaaa | gaaagggaaa | gctttcttta | tactacttat | 1980 |
| ttcatcttta | gtgtttttta | gaaattttta | atatatgaag | taatcctaaa | ataatataat | 2040 |
| aaatttatgg | acagttattt | ttgataaaaa | acatgagaga | tgtgaattta | gataacttcc | 2100 |
| tttgttgaaa | tttcaactgg | ctctgtgact | ttcttttttt | aaattttatt | ttatgaaaaa | 2160 |
| gagatgctgg | tctcgaactc | ctgggagtaa | gcagtcctcc | gccttgccct | cccaaagtac | 2220 |
| tgaggttaca | ggtgtgagcc | attgtggctg | ccttctctga | ctttcaaaaa | aattactttt | 2280 |
| attattttct | gtcatttttt | ttctgaaata | ttggcagaga | ggttctagga | atgaagggtca | 2340 |
| gaagcaagtg | tgagccattt | tacctgcctt | ctgtgacttt | caaaaaatta | tttttttgag | 2400 |
| actgagtctc | actctgttgc | ccagtcctga | cctggacaac | aggaatgaaa | ttctgtctca | 2460 |
| aaaaagaaaa | gaagggtggca | gcagctcaac | cctgggcacc | ctgctctgct | tgaaagaatg | 2520 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|------------|------|
| aggacaaggt | cttcccaacc | accctgtgcc | tgtcgtcct | aggttcttgt | tccggcagct | 1020 |
| cctgctggcc | acacagggg | gccccaaagg | caaggagcag | tccgtgctgg | ccccccagcc | 1080 |
| agggcccgga | cccccaattca | ccctcaagcc | ccgcgtcttc | ctgcacctct | acatcagcaa | 1140 |
| cacccccaaag | ggcgcgggccc | gtgacatcta | gtatgcaggg | cccccggggc | aggcggggga | 1200 |
| tggggctccc | tcggttgggc | tgctgggtgg | ggggcagggt | cagaagagca | gccctgaagc | 1260 |
| tgatgtctgt | ccccacccgg | cccgacgct | gccccccacc | tcggaagggtg | gcctcccgc | 1320 |
| cagcccaccc | atgcgcctgc | aggcccatgt | gctcgggcag | ctgaagcctg | tgtgctacgt | 1380 |
| ggcgccctcg | ctctgtgaca | cccacgtggg | ctgcctgtca | gccagtgaca | agctggcacg | 1440 |
| ctggggccgtg | ctggggctgg | gtggtgacct | gctggcccac | ctggtgtccc | cactctacag | 1500 |
| caccagcctc | atcctgggtg | agcacgtggt | gagggctggg | ggggtgagaa | gggagggcag | 1560 |
| ggaggtcact | caccttgttc | tgtcccttct | gccctgcagc | tgactcatgc | cacgaccctc | 1620 |
| cgactctgag | caggggccatc | cacacccggc | cctgcctgga | cagtgtcctg | gggccatgcc | 1680 |
| tgccacctcc | ctacgtccgg | accgccctgc | acctgtttgc | aggggcccg | gtggccctt | 1740 |
| ccgaacccac | ccctgacacc | tgccgtggcc | tgagcctcaa | ctggagcctg | ggggaccctg | 1800 |
| gcatcgaggt | tgtggatgtg | gccaccgggc | gtgtgaaggc | caagtgaagaa | ggggccctg | 1860 |
| gggcccgggct | gtggagcagt | gctggtgatg | gagggctcat | gcatgagctt | cctcacctca | 1920 |
| gtctaataccc | agcgcaaccc | cttcgctcaa | ccccttcgct | caacccttcc | ctagctccgt | 1980 |
| agtgggtggcc | acacctctgt | ctgccctgtg | agtcctgtga | cattgtcaca | gtgtgagagg | 2040 |
| aggtagtgtg | agggtgttag | caggcctgct | ggtccagctt | gtatctctct | gatctcagt | 2100 |
| gtatcctctc | ttcatccagt | gccgccctgg | ggcctccctc | ccgtctctgc | aaggcctcct | 2160 |
| ttctccgggc | ctttcaccag | gcggccaggg | ctgtggggaa | gccctacctc | ctggccttga | 2220 |
| agacctacga | gggtgccaa | gttgggttccc | cacctccccc | ccgtcccggg | ccctctccag | 2280 |
| ccctgcagtc | cctgccccct | gcagggtacct | cctctcacc | cacctctcat | ctcccgcct | 2340 |
| aggctggggcc | ctaccaggag | gctcgcaggc | agctgtctct | cctcctggac | cagcagggcc | 2400 |
| tgggggcttg | gccctcgaag | ccactgggtg | gcaaattcag | aaactgaagc | cagcctcggc | 2460 |
| gggaccgagg | tcccggagcc | aagctgtacc | cctgctgggg | gagtgcccta | tctgaggagc | 2520 |
| gttgtgggga | gaacatgggt | tgtgcggggg | gaaactgggg | ctggagggaa | ggaggagcct | 2580 |
| gctgtgggtg | ggaggcggct | gctgcacgtt | tgggcttgaa | taaagaagta | tttctggtt | 2639 |

<210> 12424
 <211> 3288
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| <400> 12424 | | | | | | |
| ggtacgtgca | gcactacggc | ctggggcagtg | cctgtgacaa | cgtagagcgc | gtgctgaaga | 60 |
| gtgtggctgt | gaagctgggg | aagacgcaga | aggtgaagg | gctcacgggc | acgggtgagt | 120 |
| gaggtcgctg | atgcggggcac | cggagccctca | ccccatcacc | ctggggggacc | ccggccatcc | 180 |
| ctggaggagg | cagggaggag | aggaacgtgt | caaggagcat | gcgcggggtc | ttctgggaat | 240 |
| gggttttcagg | gcagggggagc | tacagaaagt | tctggagagg | aagggcttgt | agtccaggct | 300 |
| tccgaggggtg | agaccagccc | tgccgcgtat | tgggcagtg | taggtggaca | cctgcaggcc | 360 |
| tcacatgcct | ggccttggag | gctccgggca | gcgtagctca | agctgttttc | tttctgagt | 420 |
| tgatcccgtt | ccctgggctt | ccctgatgcc | atcatggagc | ctcttagggc | tgggtccctca | 480 |
| ggtgggtaag | ggctgggctt | gtcctgctgt | gaaggctcct | tcctcactga | accctcccgt | 540 |
| ccccaggtta | acgtgaacat | tattcagcct | aactatcctg | cggcagccc | tgacttccctg | 600 |
| cagactttcc | gccgtgggct | gctgggttcc | gtgatgtctg | acctcgacgt | cctgcggggc | 660 |
| caccccccg | ctgagacttt | gccctgaact | tgtcccggta | gggagggccg | gaggcatgtg | 720 |
| gcctcccaga | cctcctgacc | tgggtggttg | aggctcaaga | cagctcacc | ggtccagaag | 780 |
| ctccatgctg | gtcactagg | tgtgtgtctc | tctggcgccc | cacagcctgg | ccagctccag | 840 |
| ggaccccgat | tgcagggccc | aagcaggtg | gagtggacac | caggcttccc | agtggacgtc | 900 |
| cctgagcagc | tccgcatgct | tggttctccc | ggagcttcct | gctcaggcct | cttgagaaat | 960 |
| ggatgctgtc | tcagaaggag | ttaaagctat | aacctgtaac | ctttaaaatc | tccagttaaa | 1020 |
| gggctgtttt | cttactggcc | tgtgaggtgc | accgtagtgc | cttgggcttg | tgtgttaaag | 1080 |
| ctgctctcac | cagtgaacc | taagaaatga | gcaggttggc | agctagggtt | tgtgttgag | 1140 |
| gctttcggtc | cagtgtcttg | cagtcctaca | acaagtgaga | ggcttgctgc | catcagagag | 1200 |
| gtttatttca | cacttacagg | cacacacaga | cacagaccag | agactcccag | cagcagagcc | 1260 |
| caagcactgg | cttcgcccc | cagtgccttg | gggcatgttc | agggcaggg | tgagggggac | 1320 |
| gccctgcaca | tggctttgct | gtgcaatgac | tggagggccg | cccggcatgg | gcagtagaga | 1380 |
| cccctggcct | ctgagcacct | tctagctcac | gggtagtggt | attctgcatt | agtggggctg | 1440 |
| agagatgtgg | ggggccctcc | agccccatta | tagtgcacct | gaaggggtcc | acagcctgtg | 1500 |

| | | | | | | |
|-------------|------------|------------|------------|-------------|-------------|------|
| tcctagaaga | gggaagagga | aggaaggtgg | gtggggctgg | tagtatggac | taaggtgctg | 1560 |
| caggacctgg | ggccagggac | atcctgtgca | gaagctccgg | ctgcctcttt | gcgggtgggtg | 1620 |
| cctgaccgtg | ccacagcagc | ctccaccagg | gccctgggtg | tcagtggccc | ctctttgctg | 1680 |
| gctggctgcc | tctgctgccc | cataccccac | acactcatca | gcctgaagtt | agcccctgag | 1740 |
| tgccacctgc | atcgtgccat | aaccctgacc | gcctggggca | ggaagtattc | aggttggctg | 1800 |
| tgtcagatgc | taatgtgctg | aatcaacagt | cattgcagat | cacgaagtgt | ccatcataac | 1860 |
| tggaacattc | catcagcttg | cagtgtctgt | gtgtgtgagg | gtctgggtgca | gctcagccca | 1920 |
| ttttccaggt | gggcatctgc | aaagttgagg | gggtcccggt | gggtctctct | gctgtgagga | 1980 |
| gactcagacc | accccctgcc | tcctggggga | aatgtcagaa | gggtctctct | gcctatgagg | 2040 |
| atctggggca | gggcttggcc | ttggcctgct | ggtcttggag | gcgttgagct | tgggtctggaa | 2100 |
| gggggtggagg | agcgtctggg | ctcactgggc | caggggcatt | gctggcagtg | tggacgggag | 2160 |
| gctgcagggc | gctgcctcct | gtggcttagt | gccctggagc | tagagagcag | tgcttgggtt | 2220 |
| agtccctgcc | acagcttcca | gatcctcacc | caggccagaa | cccaggccag | ctgggggaagg | 2280 |
| cagaggctgg | caggggccgt | ggtgggtgct | ggtcttgact | ttggtgtcca | ctgagtcccc | 2340 |
| aggctcaggc | ccaggaggga | tgcagtcagg | ctgagggcga | ggctgtcccc | aggacatgga | 2400 |
| gaggggtgaga | tcccaaggcc | acggcggggg | gcagggagaa | cccctcctac | cctggatgag | 2460 |
| tgggtgactg | gagagctaga | gaacgtggca | gacccaagac | ctctcagtg | tgagcccatg | 2520 |
| gaggatgccc | caggctggcg | ggactgggaa | gcagagggct | ggtcttaaca | caggtgtgtc | 2580 |
| cagtgtctgga | ggcaagtcct | tgtcgtgact | gtccagcgcc | actccatgtc | tctcctgtcc | 2640 |
| ttggatgttt | gggggctcag | cctcttgcac | gggtgtcctg | ctgggcgctg | ggccccgcca | 2700 |
| ctggccccct | gcttgctttg | gggtctgagt | tagtctcctg | ctccactgag | caggccgtca | 2760 |
| gctgccagcc | caccacgcgg | atacccaggc | cctgttccga | ggcctggaac | agctgcttcc | 2820 |
| gaagaagggg | ctgccttcag | ggaaatgcgt | gcaccgtgca | gcctgtgctg | tgccagggga | 2880 |
| ggcctcttca | gcgggatttg | cagttgtctg | gccctgagaa | caggcagaac | tgtgtgatcc | 2940 |
| ctgaatgtga | acctgaagtt | caaaggactt | ggaaagctct | ggaatgtgtt | ggtttttccc | 3000 |
| ccccaaaatg | ggtcctaagg | agggtaaagt | gacttgtttc | aagttgttgg | agcaaagtgg | 3060 |
| gtctctcacg | gatctcggcc | tgagggtgtg | ggggagaagg | cctggacagc | ccctcagggc | 3120 |
| aggggtgtgt | ttcccaccag | ccgcagagag | ccaggatgga | cgttcctcgg | acggacgggt | 3180 |
| ttcctgcttg | ggaatgttcc | tgggctgtga | gatccactct | tctgggcagg | tggttagcac | 3240 |
| ctaacgtttt | tccctcactt | ccccccaaat | tcttaagtcc | tttgggtcc | | 3288 |

<210> 12425
<211> 868
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|-----|
| <400> 12425 | | | | | | |
| tattttgagt | ttcaccttgt | taggtgatgg | atatctacat | tcctgtaaaa | attcttgagc | 60 |
| tttgttgtgg | gacagttaga | ttattggaaa | cagtccgggtc | ctttcaggag | ttcttcccat | 120 |
| tggcaggtct | cgggggtggg | ccggggcgcc | tcctccaggc | ttgctcctct | ctcctgggac | 180 |
| agcttttttg | gagcaccagg | gcacccttga | ggctgctgat | tcagagctca | tgcttgggtg | 240 |
| ctccgagaag | ttagatttag | aacctgtgtt | actcagggtt | ctgatgctcc | tatgggctct | 300 |
| gagctcatgt | cttgcttttg | tgggccttgg | ggtgagtcct | ctgttaccgg | ctcatgctgt | 360 |
| gaccaggtcc | gagggcacca | gcctcctcaa | ggttgagcct | gccctcgtgg | gagccacgag | 420 |
| acaggttccc | ctcacccttg | gctgtcagga | aggttgggag | agtgttgggt | ctgggttagt | 480 |
| cgggctccca | aggcttaggg | tgggttttgt | ccctgtgagt | ggctgctctg | tgctggcctt | 540 |
| tccctccagg | cctctctgcc | cagagcctgc | actgtgagga | gtcagagtgc | ccgttacaat | 600 |
| cactgggtga | cgcttagcag | cggtgggtgc | ctagttagcc | catgctgggtc | cctgtgctag | 660 |
| gaaaacaccg | ctcaaacc | cagccgggtg | gagaggatgc | aggtgtactg | gctgcctgga | 720 |
| agttaccgag | tgccatcctt | agcagcaaac | agagtatgtt | tgcagatggg | ctgctgtgct | 780 |
| cctcttttag | tttccaggac | ctgggcctgc | acagaggcct | gcctgtccta | ccccggatag | 840 |
| agtggatgaa | gcctgtgtgt | gtgaacag | | | | 868 |

<210> 12426
<211> 19842
<212> DNA
<213> Homo sapiens

<220>

<221> SITE
<222> (2039)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2064)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2065)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2067)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2068)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2070)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2085)
<223> n equals a,t,g, or c

<400> 12426
agcctgtgtg tggccctgcc cccagggctg gctgtttctg tgcttaaagc catcttccag 60
gaagtgcattg tacaggtgag ggataacagt catgttggtg ttctcctctg tctctacccc 120
ttgacataac tgggattcaa tagcaaaaat tattgccttc taagttctga attccttttg 180
atcttgtgaa tgtttttatg ctcttcttca gtatgtttat atgctcatct ttgttattgg 240
acaaggaaag ggggtgcatgc cattagatct gacctgtgtc ctcttatacc tacagaaagt 300
aaggcatccc tctgtcaggc aggtttgaat tattggcacc actgctgtgc tgctgagtca 360
atatccatac cctttctctg tagtttctct tagattgatc ttatgctggt ataaagagca 420
ctgttcactt agagattatg aagcaggaac tagctgtgtc agctgaggta ttctttgagc 480
atcttcttca ctcttctctc cccaccccc aagtcctgc cacaggtgga cgcacacaca 540
gtctacaata tcatcaccaa ttttatgcga acccggaag aaggtaagag acagagcttt 600
ctgggaaatg tcaaaagcaa gcacatccta ctttttcccc tattagtagg actcatttta 660
cctgggggta tatagaagag ctggtatcct gagagagaat gataaaggga aagagggggg 720
ctgctccctc ccagtgaagt aaagaaagg tagagtttgt ttgagccagt gttttaaatt 780
cttgccctca cagcaatgtg tatattgttg cacatctctt cactgagtac tttcttgga 840
tggaaaaagg gtcagccctg aagagaaaagg ggaggcaatg atagcagagg gagaacacag 900
gctaggagaa agcccacact ttctgtgctg tgggacagta tagtaacctt attctctcct 960
tcccagagct aaagagccta ggagctgact tcacctttgg cttcatccag gtgatggatg 1020
gggaaaagga tccccgtaat ctctgtgtgg ccttccgcat cgtccatgac ctcattctca 1080
gggactatag cctgggtata tcgtggtagc catgattagc tcattggagc tttatcagat 1140
gagtgaagct gataaaccac cctcattttt tctctgttgc cacaggaccc tttgtggagg 1200
agttgtttga agtgacatcc tgttatttcc ctatcgattt taccctgtga agtagcacct 1260
tcattgtttg atcatatatt tattgagtgt ctgctatgtg ccaagccctg ttctgggcac 1320
tgaggggtaca ggtcaccaaaa atagacatcc ccgcccctcat ttttttatat ttttaataaac 1380
taggaaatgg aaaagcattt gacatatgag gaatgattca aagcagcatg tattgggggg 1440
aattcttaag ctctttaaca ctgtatttag tgctgaaggc tacaggattg caaaacactg 1500
tccctgccct tgaaggctga aacatttaag taacaatagg agattaggta ggaaaatgag 1560

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tactactata | gctgtttcaga | gaagacaaaa | gttcagttgtg | agctagagta | ggcaggaact | 1620 |
| gacttcacag | ttaagatagg | atttcagctg | gtttgtgagg | gatgcagaag | atatgattct | 1680 |
| ggagttggac | agggcatctc | aggctataga | aacaaagtga | caaaacaaag | aaggcacaat | 1740 |
| tgtgcacagt | gtacagaagg | tatttgctct | gacctctctg | ggccttcctc | ccattctgca | 1800 |
| gttgagttcc | cttctactgc | caaatactca | agagtttcat | caccgtgtgg | gtgtgtgtgc | 1860 |
| tgcaagcatt | agtggtttga | aagaaaataa | aggcattcta | ttgcagcatg | ccaaacagca | 1920 |
| tattgactct | cactgacctt | ataatgacac | caccattctt | gctgtaggga | atttcttacc | 1980 |
| agcttatttc | agttgacatt | atgttactgg | ggaccacctt | tctcctgaaa | tgaacttana | 2040 |
| aaaaaaaaaa | attttctctt | ttcnanncn | aaccttattc | ttgtnaggtc | ttgaaagatc | 2100 |
| ctggtttagc | tcccacattc | ttctgttttt | actttggttt | ttttgggtgtg | tgtgtttctt | 2160 |
| ttttgtttgt | tttggtttgg | tttttgcttt | tttgagatgg | agtctcgctc | tgtctcccag | 2220 |
| gctggagtgc | agtgggtgtga | tctcgactca | ctgcaacctc | cgctcctg | gttcaagcaa | 2280 |
| ttctcctgcc | tcagcctccc | aagtagctgg | gattacaggt | gcccaccacc | atgcccggt | 2340 |
| aatttttgta | tttttagtag | aaatgggggt | tcaccatctt | gaccaggctg | atattgaacc | 2400 |
| cctgacttcg | tgatccaact | gcctcggcct | cccaaagtgc | tgggattaca | ggcgtggggc | 2460 |
| accatgccca | gcctttactt | tgttttattt | tgtgttttgt | gttggtttttg | aaaagataat | 2520 |
| tcattcacat | gattccaaagt | cgaagggt | gagaaatctc | cctaccatct | ttttttcttc | 2580 |
| ataatcaacc | aagttatcag | ttatgtttgt | atctttacag | agctttttca | tctatatgta | 2640 |
| agcaaagtct | tttaccaca | ccccctaaa | atcaatgtgt | gcacatgcgg | gcatgtacac | 2700 |
| acacacacac | acacacttct | cctgtacttt | gcttttttca | ctgaacacta | tgtcttggag | 2760 |
| agtgttccac | gtcagtatat | aagttagctc | tttcattctt | tatggctgca | taatattcct | 2820 |
| ttggccggaa | ataatgaata | atttcactag | tcctctgtgg | attgttgcta | atcttttgct | 2880 |
| gttatgagca | gtgctacaac | tttcatacat | atgaatataa | tgatagaata | aattcctaaa | 2940 |
| agaaatcgct | aggtcaaaaga | atatgtgcac | ttataatttg | ggggagagga | acagtatttc | 3000 |
| atccattttt | ttgaaaggtt | atacaatgag | catgatttcag | catttaaagg | gtagataatt | 3060 |
| aaacttcttt | cataccctt | tactgtact | gtccattttc | ccattagaaa | caatcactgt | 3120 |
| tcacagctgt | ttattttcac | agagataatc | taggcaaaat | aaacttacag | ataatattag | 3180 |
| gaagatttct | ctcattcaag | cagatttttg | tatgttgttc | tgcactgcag | tctatcagaa | 3240 |
| gcagaaagct | cttatcaaga | tattaattaa | aacagagaca | cttggtctta | gtgtaactat | 3300 |
| ttgagttaca | aatactcttt | attgtcttac | aaatcagggt | ttttattggt | gttggttctg | 3360 |
| ttctgttttg | ttttgttttt | cagacagggt | ctcactctgt | tgcccaggct | ggagtgcagt | 3420 |
| aacacaatcc | ttgctcactg | caacccctgc | ctccgggggt | cgagtgattg | ttgtgcctca | 3480 |
| gccacctgaa | tagctgggat | tacagtacgt | gccaccatgc | ctgactaatt | ttttttttat | 3540 |
| attttttagt | agagatgggg | ttttgccatg | ttgtccaggt | ttgtctcgaa | ctcctcacct | 3600 |
| caactgatct | acctgcctcg | gcctcccaaa | gtgctgggat | tacactgtgtg | agccacatat | 3660 |
| ccagccacaa | atcagtattg | tgtgccatca | tagtggatct | gatgagctta | aggttcagtt | 3720 |
| tcttcactat | gcttatatgc | tactctaaag | aagaggttgg | caaacttttt | ctttcccttt | 3780 |
| tttttttttt | tttttgaggc | aggctggagt | gtagtggcac | catcacagct | cactgcagcc | 3840 |
| tccacctctc | tggactctgg | tactctgggtg | atcctcccac | cctgctctcc | cgagttagctg | 3900 |
| gaaccatagg | cacatgacac | tactcccagc | taattgttgt | atttttctat | agagacagga | 3960 |
| ttttgccatg | ttgcccaggc | tggctctgaa | ttcctgggct | caagccatcc | acctgctctg | 4020 |
| acttcccaaa | gtgttgggat | tacaggcata | agccaccatg | cctggccaac | tttttctata | 4080 |
| aaaggccaga | cagtagcttt | gtgggcatata | ttgtctctct | aactctgtctg | ttactgcaca | 4140 |
| aaaacagcct | tagacacagg | aacagctaca | gtagctatat | cccaatagaa | cttttgttat | 4200 |
| caacactaaa | ctttgaattt | catataaatt | tcacttgtca | caagatattc | ttttggtttg | 4260 |
| tttcaaacat | taaaaatgtt | aaaaccattc | ttagccaaac | aatgtcaaca | ggttgatttt | 4320 |
| tactcctaata | gcagagtaga | tattggttct | tccttcaccg | tcatcctaga | ttcccttatc | 4380 |
| ctttttcttg | gatcagatct | cctgtttcct | gagttcacat | attcctcatt | ttgtggttta | 4440 |
| ccccctcagt | ttgatgggtg | acttccttta | gtattttcct | gagagaatgt | atgaagaagt | 4500 |
| gagaattttt | tagattttga | acctttaaata | gccttcaatc | ttgtctctca | tttttgacat | 4560 |
| tatgggcata | taattcaaga | atagaaattc | taggccgggc | gcagtggctc | acacctgtaa | 4620 |
| tctaagcact | ttaagaggcc | gaggcgggtg | gatcacttga | ggtcaggagt | tcgagactag | 4680 |
| cctgaccaac | atggtggaat | cccgctctcta | ctagaaatac | aaaaatttagc | taggcgtggt | 4740 |
| agcaggcgcc | tgtaatctca | gctacttggg | aggctgaggc | aggagaattg | cttgaacctg | 4800 |
| ggaggcggag | gttacagtga | gccgagatca | cgccatttga | ctccagctta | ggcaacaaga | 4860 |
| gtaaaactcc | atctcaaaaa | aaaaaataaa | taaaaagaga | attctagctg | gatgcagttg | 4920 |
| cacatgtctg | cagtcccagc | tacttgttgag | gctgaggcag | aacaatcact | tgaggccagg | 4980 |
| agtttgaggc | tgtagtgcac | tatgatttga | cctgagaaaag | aggccagggtg | cagtaactga | 5 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ggctgggggag | gcagagggttg | cattgagcca | agatcatgcc | tctgcactcc | agcctggaag | 5280 |
| acagagccag | actcagtcac | caaaaaacca | aaaacaaaaa | caaaaaaaaaa | atggaaatta | 5340 |
| ttttctccta | agattttgaa | ggcattgcta | catttaaatac | tagttattgg | ctgggcgtgg | 5400 |
| tggctcatgc | ctgtaatctc | aacacttcga | aaggccaagg | caggcggatc | acctgaggtc | 5460 |
| aggagttcaa | gaccagcctg | gctaacatgg | tgaaccccca | tttctactaa | aaatacaaaa | 5520 |
| aaattagccg | ggcatgggtg | cgtgagcctg | taatcccagc | cactcgggag | acaggcagga | 5580 |
| gaatcgcttg | aatcctggag | gcagagggctg | cagtgaagcca | agatcgtgcc | attgcactcc | 5640 |
| agcttggtga | acaagagcaa | aactccatct | caaataaata | aataagccta | gttatctagt | 5700 |
| tttcatttgc | tgtggagaag | tctgaatttc | ttctgtttca | taaacttttg | tattttaccat | 5760 |
| ttttttcttc | ctctctataa | actgatgttt | ggttcacccc | gatacattga | aacttcacag | 5820 |
| tgatgtgcct | tagtattggg | ctatttcctg | tactgtgttg | ggtaacttagt | aggccctgtc | 5880 |
| aatctggtaa | cccgtgtcca | ttagtcctgt | aaatttttct | tgaattcttt | aattgtatgat | 5940 |
| ttcttctctc | ctctttttctc | tgttccttca | ttttggaact | ctcattaatc | ttctgttggga | 6000 |
| cctctgattt | tctgaccttt | tgttttctat | tttgtaacct | tgtctttttg | ttactttata | 6060 |
| agagaattcc | acagttttat | cttttctatc | aaagtccagt | catgaaaaca | gaaaccaggc | 6120 |
| caggttcggt | ggcttacgcc | tgtaatccca | gcacttcggg | aggctgaggt | gggtggatca | 6180 |
| ttcgagggtca | ggagttccag | accagcctgg | ccaacatgat | gaaaccccat | gtctacaaaa | 6240 |
| aatatataaa | aattagccag | gtgtgtttgt | gcgcctgtaa | ccccagctac | ttgggagggt | 6300 |
| gagacatgag | aatcacttga | acctaggagg | tggaggttgc | actgagctag | gatcaagcca | 6360 |
| ctgcaatcca | gcattgggtga | cagagtggaga | ctctgtctca | aaaaaaaaata | ataataataa | 6420 |
| tagtaaatcc | cttctttttac | tatgtttttg | tggaggtttg | caaagaggaa | aaggaaaacc | 6480 |
| tgatatatgt | tttcagttctg | tcgtctttgt | acagaaacca | tcaaggcttt | ctgttttcag | 6540 |
| aattacagct | ttttataagg | gtgaaaaaaa | tggaaatgtc | catcaacaag | gaattatcta | 6600 |
| gataaactgg | tacaaccaca | aatgaaatc | atagccacta | aaactaatgc | tatgaaagaa | 6660 |
| taataccata | aaaatgttct | taatattgta | agtgaaaaaa | attaaaaacc | acatgtacaa | 6720 |
| aatgattttt | aagtatatat | atattttata | tggaaacagt | atatactagc | acatagtaac | 6780 |
| aatatatata | agcgaagaaa | ggaatacacc | agaaagttaa | gcatgcttat | ttctgagtgg | 6840 |
| tgaaatgata | gaaaatgtgt | aatcagattt | tttaaaatgc | ctaaagacaa | aagttcccaa | 6900 |
| ggagtaccta | agatcaagca | agtccttttg | ctggggcctc | attatcttac | tatcttccct | 6960 |
| gattgggtat | gagtatcacc | ctgttctgca | gggtttaccag | gttcgagcct | gtgttcaagg | 7020 |
| tgggtctgaaa | tgttacacaa | acccacagcc | cttctccctt | ttccagccac | ctaattgatcc | 7080 |
| ccatgggtatc | cagagagaag | acctcatcct | gagtcttcgc | gctgtgctgg | cttctacacc | 7140 |
| acgatttgct | gaggtgggtc | tagccaagg | tagggtatat | agcctctgcc | catagatggc | 7200 |
| tctgaagaaa | gagcagtaaa | agcatggaga | aaaaaatatc | tggtatacat | tttagggcat | 7260 |
| gacaccctgc | aagtgtcttg | tgtggcaggt | atcttcagac | cttcgatgta | gaaaacttta | 7320 |
| ccatctcttc | ataatccaga | gctggattca | gtggcacaca | cctatagttc | cagctactca | 7380 |
| ggaggagtct | gagtggaaag | gatcacttaa | accaggagt | tcaaatccag | cctgggcaac | 7440 |
| ataggagac | ctcgtctccg | ctacacaaaa | aaataaataa | acccaatccc | tatatgggtgc | 7500 |
| tgtcttttaa | aatcctgtaa | ctttgtcaac | ttgcctgttt | ttgaggtagt | ggggctctgg | 7560 |
| tactgcttg | gcaggaagg | tagcttacat | tcatagctcc | tgacttgagt | acagctcctt | 7620 |
| gatgtagtac | ctgcttttag | ggactgatgg | caaggacagg | gttgaccttg | atgtgactga | 7680 |
| cacaccaccc | atctcaggct | taagatcttc | cttctgtccc | acagtttctg | ctgcccctgt | 7740 |
| tgattgagaa | agtggattct | gaggttctga | gtgccaaagt | ggattctcta | cagactctgg | 7800 |
| tgagtgattt | ttctccttgc | aggacccagc | taccttttga | caagttagg | gtcctaaagg | 7860 |
| atatagattc | taggatagcc | aaggaacagt | tcatgggcct | cagaagagga | taccaggat | 7920 |
| ttgggccttt | gtgtcgacct | gaagccccc | gctgcatac | gtcgtgtccc | atcccccatc | 7980 |
| ccatagtaac | tgaggaaagg | ctgaccagga | ctccctcttt | aggcttctat | tttatcaacc | 8040 |
| agggttatct | cctacttctc | tgttccctta | gtaggactgt | taaaaatctt | aactggtttt | 8100 |
| tctgctgaga | ccagggtctc | ttcagggtgc | attatgctga | ggtacctgca | catcctaggg | 8160 |
| tgtctgagt | tgtacataac | tgatagcagc | ggtttctctg | gcagaatgct | tgtgtgtctg | 8220 |
| tgtatggaca | gaaggaactg | aaggacttcc | tccccagcct | ttgggcttct | atccgcagag | 8280 |
| agggtgagt | cactcagata | aactcactac | tgttaacttt | caattgtcag | gcatgagggg | 8340 |
| aaataataca | tcctgtcctt | ttccctctgt | catccccagg | gccaagatat | aatgcctgg | 8400 |
| tattcaggag | gcaagtaggg | ggacataatt | ctagttgaat | gacaagagag | agagtcccta | 8460 |
| tgtgacggtc | agctgcttgg | taagagcagc | tgatcacctt | tgcacattac | ccacttcttg | 8520 |
| tccttctgtg | gcaaggagtg | caggtcatgg | tgcctttggc | accatgggtga | atagaaagg | 8580 |
| gagcagagcc | actgctcaga | gttggctttt | tgtttctcag | aaagtatgtg | tctctgtcct | 8640 |
| gagtgtgact | aaggacttgg | taagaacaca | ccaattgaga | agacactcag | ttgggggtgt | 8700 |
| aatttccatt | tctgtgtcct | agaggttctc | actccccctc | ccaacaagga | aataggcagt | 8760 |
| ggattggttg | ggtctcatct | ggtgcaggct | cacctcagta | gccatgggat | ccctccctga | 8820 |
| caggtgttcc | agacggcaag | tgagcgggtg | gaggcagagg | gcctggcggc | cctccactcc | 8880 |

| | | | | | | |
|--------------|--------------|-------------|------------|-------------|-------------|-------|
| ctgactgcgt | gtttgtctcg | ctctgtgctg | agggctgatg | ctgaggacct | ccttgactcc | 8940 |
| ttccttagca | acattctaca | gggtaatggg | gccgtggcag | ccaggaaggg | gagtgcagcac | 9000 |
| aatagaaacg | acattccttg | cctgggtgcg | gtggctcacg | cctgtaatcc | ctgcacttta | 9060 |
| ggaggccgag | gcgggtggat | cacctgaggt | caggagttaa | agaccagcct | ggccaacatg | 9120 |
| gtgaaacctc | gtctctacta | aaaatacaaa | aattagccgg | gcgtggtggt | ggacgcctgt | 9180 |
| aatcccagct | actcgggagg | ctgaggcagg | agaatcgctt | gaaaaggcag | agggttgcggt | 9240 |
| gagctgagat | tgcgccactg | cactccagct | tgggcaacga | gagcaaaaact | ccatctctaa | 9300 |
| aaaaaaaaaca | aatgacattc | cttaagggcc | agtgcctttt | attgttttagt | cccaacatat | 9360 |
| ttggtgattt | gggggcgata | gccctacttt | gaattgaaaa | caatttgagt | gttaactgct | 9420 |
| tgcaaaactgt | catgggtctc | agtctccaac | ctctgtggac | tgtaggggag | tcaggcacca | 9480 |
| tttggcctcc | tccccagctc | tgtgatgtgc | tgtctctcta | gactgcaggc | accacctgtg | 9540 |
| tgaaccggac | atgaaaactg | tgtggcctag | tgccaagctg | ttgcaggcag | ctgcagggtgc | 9600 |
| atctgcccgg | gcctgtgact | ctgtcaccag | caatgtactg | cctttactgc | tggaacagtt | 9660 |
| ccacaagcac | agtcaggtaa | gggagcagaa | tctttggggg | aaatgatggg | acctgtgtgc | 9720 |
| taggttccct | ttctcagaga | gtgagctaag | ttttagcttg | ggccaacata | gtagaccttg | 9780 |
| ggttttgctc | ccattaactg | ctgctgctgc | ttcccttact | cactttttcc | ctgtctcata | 9840 |
| cataaaaagga | tcattctccc | aagacaggag | gatagcttga | agccaggagt | tcaagatcag | 9900 |
| cctgggcaac | aaagtgcgat | cccactctcta | aaaaaaaaaa | aatttttttt | aaattagcca | 9960 |
| agcaggacat | gctggttcac | gcctgtaatc | ccagcacttt | aggagaccaa | ggcaggacaa | 10020 |
| tcacttgagg | ctaggattta | aagaccagct | tgggcaacaa | gacaagacca | catctctaca | 10080 |
| aaaaaaaaaaaa | aaaaaaaaatta | gctggataag | gtggcagcga | tctgtagtcc | cagctactca | 10140 |
| agaggctgag | gcgagagaa | cacttgaacc | taggaggtcg | gggctgcagg | gagctataat | 10200 |
| catgctactg | tattccagcc | tggctgtggc | atagcaaaac | ccccatctct | tggaagaaaag | 10260 |
| aaagaatttt | ccctatatcc | agagtagcag | gattgaaatc | ctttaaaata | ttctttgact | 10320 |
| ctagtacccc | ttgaaacggt | acagagcagc | cagcggcgga | caatccttga | aatgctcctg | 10380 |
| ggtttcttga | agctgcagca | gaaatggagc | tatgaagaca | aaggtagagt | tgccttccat | 10440 |
| tgcagtgtct | tggggactgt | tgaacacttc | agcctataaa | ggatagcagg | gcaaagagtg | 10500 |
| ctgtggaaaa | gtagtctaga | acagtgggtc | tattctgagg | ttgtagcaca | agagaacact | 10560 |
| taacagatga | gatggatgag | atctgtttat | ttttctcagt | gtgctttctg | gatacccaat | 10620 |
| ggattaagct | ctttaaatct | gccccaggag | gcggggcatg | gtggctcaca | cctataatcc | 10680 |
| cagcactttg | gtaggctaag | gcaggcgga | aacttgaggt | taggagttcg | agaccagcct | 10740 |
| ggccaatatg | gtgaaaccct | gtctctacta | aaaatacaaa | aattagccag | gcctgttggc | 10800 |
| acatgcctgt | aattccagct | actcgggagg | ctgaggcagg | agaatggctt | gaacctggga | 10860 |
| ggcagaggct | gcagtgatcc | gagattacgc | cactgcactc | cagcctgggc | aacagaggcc | 10920 |
| ttgtctcaaa | aaaaaaatct | accccagggt | ggctgtgtat | cacagcttag | tcagggatat | 10980 |
| ggaatgcagt | ggcttccctc | taacctggcc | tctgtctctt | ccctagatca | aaggcctctg | 11040 |
| aatggcttca | aggaccagct | gtgctcactg | gtattcatgg | ctctaacaga | ccccagcacc | 11100 |
| cagcttcagc | ttgttggcat | ccgtacactg | acagtcttgg | gtgcccagcc | aggtacatct | 11160 |
| taagggaaaag | agaagaggaa | aatatgtgtc | ctttcttctg | aagactgcct | tggtgaaaag | 11220 |
| cagccttact | atcctcttct | tactgcaact | ctggatgatt | tgggatttct | aataagagct | 11280 |
| tagaaggggt | gtgatggctg | caggggaaga | aagatgagat | tcattgtccc | ttctaactac | 11340 |
| agatctccta | tcttatgagg | acttggagct | ggcagtgggt | cacctgtaca | gactgagctt | 11400 |
| cctgaaggag | gattcccaga | gttgggtgaga | atttaaagca | atgagataga | gcaagctgtt | 11460 |
| ccctgcctct | gtattggcag | caaaagatca | agctaggacc | agggctctgt | gcttctgacc | 11520 |
| cttggctctc | cttaggggag | gtgagctctg | tgttagactc | tggctgctaa | ccagttggag | 11580 |
| agatgtagga | ctgctctctt | cttaggcctt | aagaagccct | gtccaactca | gtgggtgtagg | 11640 |
| tacttgagtt | ctgctcttta | gcaaggaggc | gttgggagct | cacactcctg | aatctgccta | 11700 |
| atatcagacg | taggcaagag | agctgtgagc | ccaggctcag | ccaatgctta | tctgctctgc | 11760 |
| gcctccagca | gggtggcagc | actggaagca | tcaggaaccc | tggctgctct | ctaccctgtg | 11820 |
| gccttcagca | gccacctcgt | acccaagctc | gctgaggagc | tgcgtgtagg | tatgtgtctc | 11880 |
| taatcctctg | tggcccatcc | ctttccagca | aggctttggg | gccttcgtgc | ttcctatcac | 11940 |
| acagtaaacc | tttgtctcat | gggttgcctt | caggggagtc | aaatttgact | aacggagatg | 12000 |
| agcccaccca | atgctcccgg | catctgtgct | gtctgcaagc | cttgtcagct | gtatcaacac | 12060 |
| atcccagcat | cgtcaaggag | acactgcctc | tgtgtctgca | gcattctctgg | caagtgaaca | 12120 |
| gaggtaacta | ctaggaataa | ccaccaacgg | actgggctga | atagggagct | gtagtctcta | 12180 |
| aggcagtggg | tctagctgta | gctatacata | agagtaacag | aatcaactct | tttaaaagaa | 12240 |
| aaaaaaaaata | ctgatgcctg | cgtccaactg | aatcagctct | tgaggaggga | tgggacttag | 12300 |
| gcaacagtac | tattaagagt | acccggccag | ggccgctgct | cttgctgtga | atctcagcac | 12360 |
| tttgggaggc | cgaggccagc | agatcacttg | aggtcaggaa | tttgagacca | acttagccaa | 12420 |
| catggagaaa | cccagctctc | actaaaaata | caaaaaatta | gctgggcatg | gtggcatgcg | 12480 |
| cctgtaatcc | cagctactgg | ggaggctgag | gcaggagaa | ctcttgaacc | cacaaggcgg | 12540 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aggttgcagc | gagctgagat | tgcgccactg | tactccagcc | tggccagcct | gggcaataga | 12600 |
| gtgaaactct | atctcaaaaag | aaaaaaagg | ttgggcgcag | tggcacatgc | ctataatccc | 12660 |
| agcacttttg | gaggctgagg | cgggtggatc | acaaggtcag | gagtttgaga | ccagcctgac | 12720 |
| caacatggtg | caatccccgtc | tctactaaaa | attatctggt | catggtggca | ggcgcctgta | 12780 |
| atcccagcta | ctcaggaggc | tgaggcagga | taatcgtttg | aacctgggag | gcgagggttg | 12840 |
| cagtgcagca | agatcatgcc | attgcactca | cacctgggca | aacagggtga | aactccatct | 12900 |
| caaaaaagaa | aaaaaaaagt | gccgggctgg | gtgtgggtggc | tcatgcctgt | aatcccagca | 12960 |
| ctttgggagg | ccaaggctga | tggatcactt | gagctcaaga | gtttgagacc | taaccagccg | 13020 |
| atgcaacatg | gcgaaaccgc | atctctacaa | aaaatacaaa | aattagccag | gagcagtgcc | 13080 |
| atgcacctgt | agtcccagct | acttgggagg | ctaaggcagg | agaatcactt | tgagcccggg | 13140 |
| aggcagaggt | tggagcaagc | cgagatcgct | ccattgcact | ccagcctgac | ctgggcaaca | 13200 |
| ggagtgaagc | cctgtctcca | aaaaaaattac | aaagatggtc | ctaggttaatt | ttcatgtggg | 13260 |
| atctgaattg | agaggcatca | ccctaaggcc | gtggtgctca | aaagatggtc | tggttaaccag | 13320 |
| cagcatgggt | gacatctggg | agcttggtag | aagtgcagaa | tctcaggccc | tactgatca | 13380 |
| gaatctgcat | tttgacagtg | taccctggta | actcgtagac | tggtgagttt | gagaagcact | 13440 |
| gctccaatgc | aaaagtgaca | gcagcctgcc | ctgtgggtag | attcaggccc | actgtgggtg | 13500 |
| atccagcagc | tgttacatag | tagaatgaat | actagacttg | gattataact | tgggcttgat | 13560 |
| tectgacttt | gcacttcctg | tgaccctgga | aaagccactg | atcatgtatt | tcattgtgcc | 13620 |
| tccatgtcct | tctctataga | gtgagggaaa | tgatacttct | aaggttggtta | tgaaaaataa | 13680 |
| ggagagaata | tatacaagtg | cttctgctgc | agagcctggg | acagagcaag | tctcaactat | 13740 |
| gaagtctgaa | tagatcagaa | agaacagcca | ggagaataaa | gtgactcagc | tttttaataa | 13800 |
| ggcactcttg | gtcccttcag | tcactcttct | ttgttctctt | catctgctgt | gtaattggaa | 13860 |
| acacctgaaa | gtgcttttaa | gcaaaccctta | cagagaacac | tttctcatca | acagggaata | 13920 |
| tggttgacac | atccagtgac | gttattgctg | tctgtcagag | cctcagacag | atggcagaaa | 13980 |
| aatgtcagca | ggaccctgag | agttgctggt | atttccacca | gacagctata | ccttgccctgc | 14040 |
| ttgccttggc | tgtgcaggcc | tctatgccag | gtaactttcc | acctctcctt | cctggccttt | 14100 |
| gggaactttg | ccctctgctg | gtgttgaaca | gcaccaccct | ctgggtattg | gtgggtactgt | 14160 |
| attttgatcc | atcagaggtt | tattttcaat | cctttgtcct | cagagtgcga | tttcaactca | 14220 |
| tagcaaaagg | tgccaccctg | accagtggca | ggaaccaaaa | tccactagt | ttagcaacat | 14280 |
| tcaaaagaat | gcacaccttt | tccccatgaa | gtgctatgtg | attagtttac | ttagaattgg | 14340 |
| actctggagt | caagcccacc | tggttgggtt | ttatcctcaa | ctctaccact | tgctaaactta | 14400 |
| ggtgaagata | ttcagccttt | ccacgcttca | atttccctcac | ttgtaagatg | gagataaaga | 14460 |
| gtaccgtcta | ggctggcgcc | atggttcaca | cctgtaatcc | cagcacttca | ggaggccaag | 14520 |
| atgggaggat | cacttgagtc | caggagtgtg | agaccagcct | gggcaacaca | ggggaccctg | 14580 |
| tttctacaaa | tagtcagaca | tagtgggtgca | cacctatagt | cccagctgct | caagaggctg | 14640 |
| aggtgggagg | atcacctgag | cccaggagtt | caaggctgca | gtgaggcatg | attgtgcctc | 14700 |
| tgcaactcag | cctgggtgac | agagcgagat | cctgttcctg | tctcaaaaaa | aaaaaaaaaa | 14760 |
| aaaactgttt | cacagggtag | ttggtaaggga | ttaaataagt | tagtgtatag | tacctgccac | 14820 |
| ataggaagta | ctcagtgtat | gatagttgct | ataaataata | aggacccatg | aagataaatc | 14880 |
| tatgttttta | attttttcag | agaccaacat | tactattttt | ttttccttgc | atctccaggg | 14940 |
| acaccaggga | caacatttct | atttcttatg | ttagaatgt | tcatcttagc | tatccctctt | 15000 |
| tcccactgtt | ggcctagtct | aaagactgtg | cagagtcttc | aggagcgctc | tgtggcccca | 15060 |
| ggtcagacca | ctcctgtttc | tggtgccctg | attctcagga | ctatagcact | accagagacc | 15120 |
| agattaagaa | ctgctgtcgt | ggctagagtc | aagccccaga | gtcagtgatg | ctgacagAAC | 15180 |
| ccaatcattc | atttcttgaa | cccgtcatgg | tcttgtgatt | gtgtgcatgt | gtgtgtgttt | 15240 |
| tgcaagaaag | gagccctcag | ttctgagaaa | agtactattg | gaggatgagg | tggttgctgc | 15300 |
| catggtgtct | gtcattggca | ctgctacaac | ccactgagc | cctgagtaag | tataatcatg | 15360 |
| gatgtggctt | gaaccagagg | agaaggatag | cattcttagg | aagaagcaac | aggtagctgc | 15420 |
| cttgctcagc | gtccttttac | ctatatgtaa | atgtgggtgca | gttaatcgtc | ttgtaagttt | 15480 |
| tggtgacaaa | acaaaaggaa | ggggctctta | gcaccatgga | ctatgagggg | gggaagccag | 15540 |
| ggccagtggg | tcttagccgc | agatgtgctt | aagaattacc | tgtagagcat | tttaaaatat | 15600 |
| accttgactt | cccagatggg | aacctgaatg | gaaatgatta | ctggcacata | tgtgccaat | 15660 |
| taatatttgt | tcaatgcatg | aatgatcagg | gcagtgccta | ttgacgtggg | gatcctaatt | 15720 |
| caaaccctag | gttgaaaagc | acgtctgtgg | aggagagggc | tgctttagaa | tcctagctcc | 15780 |
| ttggtcatatc | ctagtactct | gccccagggt | tagctgcccc | gagtgtgaca | cacattgtgc | 15840 |
| ccctcttctt | ggatggcaac | gtgtcctttc | tgccctgaaa | cagcttcccg | agcagattcc | 15900 |
| agccattcca | ggtaacagtc | ttagaactta | catccttcaa | gctgggtttt | ttttagggtc | 15960 |
| aatctggaat | gggtagaggg | gcagacaagc | ttattgctgg | caggcttgat | cgggctctcc | 16020 |
| ttcctttata | ggatggctcc | tcagggcaga | ggcggctgat | tgactgctt | atggcctttg | 16080 |
| tctgtccctt | gcctcgaaat | gtaagtgcgc | acatttggga | agtactgtta | tttaaccttg | 16140 |
| acaaggtgac | tccgggctga | aatttgccac | aggctaagct | gatcttttac | ttccccacc | 16200 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|-------|
| agagaagtta | gttctcatcc | gtccccgtcc | ctgctgccac | tatgtactgg | ttctcttggga | 16260 |
| gttcaagtgt | tctctgggtc | cattacatgg | ccagggttttc | tgtagggtgga | aatccctcag | 16320 |
| ctgaaccaac | tcattgcggga | gcttttggaa | ctgagctgct | gccacagctg | ccccttttct | 16380 |
| tccaccgctg | ctgccaaagt | ctttgcagga | ctcctcaaca | agcaccctgc | aggtactgag | 16440 |
| atcagactat | gtaaggagcc | tcccagaatc | aactacccat | gaaatcttat | agctcagtac | 16500 |
| tcatttctct | tttaaaagga | gcttgctaata | aacattaaca | gggcttcaac | tgctcaagca | 16560 |
| ctgtcctggg | actgcccgtg | ggaaaagcgt | caagaccaca | gttgggcaga | gctttatagt | 16620 |
| acctaagaag | agaaggagc | acaaagagtc | tagttctgcc | gtcctactcc | ctacagtggg | 16680 |
| gctagtgtgg | ataattcttt | attggaagta | gatgaccctc | tcttttcaaa | tggcagcacc | 16740 |
| tctgtattat | gagaatacca | ggctcttatg | cagggtgtcca | atcattttgt | ccacaggcaa | 16800 |
| aatgatatt | ttccctttct | aacagcttct | cagggagctc | tgactttaa | gtgatttgca | 16860 |
| tttcattgct | aaagggaata | tgtgtagcct | ttatgtcagc | atttctcttc | tccttttttag | 16920 |
| ggcagcagct | ggatgaattc | ctacagctag | ctgtggacaa | agtggaggct | ggcctgggct | 16980 |
| ctgggccctg | tcgtagttag | gccttcactc | ttcttctctg | ggtaaggagt | tggagtggag | 17040 |
| tctggttagc | cagagaggca | attatgtctg | gttaaataaa | atgtccctgt | ttgaccctaa | 17100 |
| accataaaca | tctatgtctc | agggttctcg | ggtttgagt | tcattcccca | attgctctct | 17160 |
| ctgtctccaa | ttacaggtaa | caaaggccct | agtgtcaga | taccatcctc | tcagctcctg | 17220 |
| ccttacagcc | cgggtacgtc | ctttctggag | acagaagaac | ccaggaccta | aacaaacttt | 17280 |
| ctggttgctc | ctattcctcc | caaggacttc | catcctcccc | tgtgtgtttt | ttgttttctt | 17340 |
| ttcttttttc | tttttggaga | cagggctcta | ctctgtcacc | caggctggag | tacagttagt | 17400 |
| caatcacagc | tcactccagc | ctcaacctcc | gtaggctcaa | gtgatcctcc | cacttcagcc | 17460 |
| tcgcaagtag | ctgggactac | aggggcaccc | caccacaccc | aactaatgtt | tgtatttttt | 17520 |
| gtaagaactg | ggtttggcca | tgttgcccag | actcctagac | tcaagcagtc | cacctgcctt | 17580 |
| ggcctcccaa | agtgttagga | ttacaggcat | gagccaccac | acccggcccc | atccttatct | 17640 |
| ttggcactta | agattcttct | tccttgatgt | acctcaaagg | ctcttttttc | tccagctcat | 17700 |
| gggcctcctg | agtgacccag | aattaggtcc | agcagcagct | gatggcttct | ctctgctcat | 17760 |
| gtctgactgc | actgatgtgc | tgactcgtgc | tggccatgcc | gaagtgcgga | tcagtgtccg | 17820 |
| ccagcgggtc | ttcacagata | atgtgcctgc | tttggtccag | ggcttccatg | ctgctcccca | 17880 |
| aggtagggag | tctgaaagaa | ggccccaca | tatacacatc | tctcctttgc | ttggccacat | 17940 |
| tcctaagat | aatttagggc | ccgcttgctt | ctttagagct | atattgtggt | ctgtgcctag | 18000 |
| aagactaaac | ttctagattc | ttgtcccaact | tcttcccttc | atgggcgtat | cttgcttatt | 18060 |
| ctgagcgtga | agggctcttt | caccgcgttt | taggctgatg | tctcagcctc | accacagatt | 18120 |
| ggaattgatt | tctcaagcta | tatatctaag | tccaatttct | cccctaagcc | tttccatttt | 18180 |
| ttacagatgt | gaagccaaac | tacttgaagg | gtctttctca | tgtacttaac | aggctgcccc | 18240 |
| agcctgtact | cttgccagag | ctgcccacgg | taagtcccac | aggcagagct | tctaagcaaa | 18300 |
| ggacaaagct | attcttcccc | agatggggct | agaaaagggga | gggaacaaga | accaggatct | 18360 |
| tcagtatgtg | gccatcccc | accttgcccc | ttgcccctta | gcttctttcc | ttgctgctgg | 18420 |
| aggccctgtc | ctgcccgtac | tgtgtgggtc | agctctccac | cctcagctgc | cttcagcctc | 18480 |
| ttctactgga | agcaccacca | gtcatgagtc | ttcacgtgga | caccctcgtc | accaagtttc | 18540 |
| tgaacctcag | ctctagccct | tccatgggtc | gttgagcccc | agcaactctt | aggcaccagc | 18600 |
| atctctccct | gggcatgtct | tcacctccct | gtgggtgtgt | tccaggctgt | ccggatcgcc | 18660 |
| gcatgcatgc | gcattgcagc | tctcactcgc | ctgcccaccc | ctgtggtaag | tacctcaggt | 18720 |
| gtccttccct | ggcctgggaa | catctcaaga | gacacataag | tacctttttg | ccttagtcag | 18780 |
| gtgggcttgg | ccaccctggt | gtgtaattga | gatctgaatt | acaaggtaaa | gatcttgtaa | 18840 |
| ttctggggcc | aaggattctt | ttccttgggc | ccagaaggta | acagaaaggc | catcctgcca | 18900 |
| cttaacatcc | cttggaaatca | ctaaagatgt | tttgctttcc | tcagaatatt | agttgtacag | 18960 |
| aatcaaaaaa | gcggtaactt | cagttgcctt | ggatggacaa | ggttgattat | atcctctgac | 19020 |
| tccacagctg | ctgccgtaca | aaccacaggt | gattcgggcc | ttagccaaac | ccctggatga | 19080 |
| caagaagaga | ctggtgcgca | aggaagcagt | gtcagccaga | ggggagtggt | gagtttctag | 19140 |
| gtcgtgggga | gagatgggac | caagatgagc | ctcatcacta | atgctgcca | ctttcttttt | 19200 |
| gcccacaggt | ttctgttggg | gagccctggc | agctgagccc | tcagtccctg | cctagactgt | 19260 |
| tctgacaatc | taacctggga | ttactaactg | ttgagccatc | ttccccaag | cagggaaacc | 19320 |
| actggtctct | gactgccttt | cccacagaca | cagcacaat | gctaggcctc | tgttgcatgg | 19380 |
| ctgtacaaag | aacataagag | tccatatttc | tagtggattt | gtaaaataag | tgtgtgtgag | 19440 |
| acacttgctg | ttgaagaaag | atcttagggtc | ctgggtctct | tgcatttata | tgctcagaaa | 19500 |
| ggggcgatat | gctgctgagg | ggtgagtgca | tatgagtgtg | gccctgagga | ccagggctgg | 19560 |
| cagatgttgt | ctacctgctg | aagaataaag | atttcttttg | gtaatggggc | tgctcagatat | 19620 |
| ttccccacc | ccacatatgc | ctcatataac | cagaggcatc | actggaataa | caatgacagg | 19680 |
| gattggccaa | aaatttttca | gggtaaccag | gacagttagca | catgcctgta | accccaacac | 19740 |
| ttcaggaggc | tgaggcaggc | ggatcacttg | aggctaggag | tttgagacta | gccctggcag | 19800 |
| tatagcaaga | acccatctct | acaaataatt | aaaaaaaaaa | aa | | 19842 |

<210> 12427
 <211> 346
 <212> DNA
 <213> Homo sapiens

<400> 12427
 gctacttggg aggctgagac acaagaatca cttgagccgg gcgcggtggc tcacgcctgt 60
 aaagcttgta atcccagcac tttgggaggg cgaggcggat ggatcacaag gtcattgacat 120
 cgagacctcc tggctaacac agtgaaaccc cgtctctact aaaaatacaa aaattagccg 180
 ggtgtggtgg cgggcgcctg tagtcccagc tactcgggag gctgaggcag gagaatggcg 240
 tgaacccggg aggcggagct tgcagtgagc cgagatcaca ccactgcact ccagcctggg 300
 tgatatagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaat 346

<210> 12428
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 12428
 cctaaaataa tttcttttctt tttttttttt cttaactgtt caaggtttat tggggggttt 60
 agttgggtata acacttggat agttgggttg attgtttata tgtagatgtt tttacattat 120
 atggtaatatg acactactga tatagtccac aaaataagat cctttggaag aattatgcac 180
 aagacatatg atattagatt tatacactgg atcccaggat gtgactgatt gggaaaaaat 240
 gttggactag gcatgttcag tgaaggagcc aggaagtatt ataacacaca gtaaacaatcc 300
 acctggctca agggggcaaat gcagcacgta 330

<210> 12429
 <211> 3536
 <212> DNA
 <213> Homo sapiens

<400> 12429
 gtggaaatcc ctcagctgaa ccaactcatg cgggagcttt tggaactgag ctgctgccac 60
 agctgcccct tttcttccac cgctgctgcc aagtgctttg caggactcct caacaagcac 120
 cctgcaggta ctgagatcag actatgtaag gagcctccca gaatcaacta ccatgaaat 180
 cttatagctc agtactcatt ctctttttta aaggagcttg ctaataacat taacagggct 240
 tcaactgctc aagcactgtc ctgggactgc ccgtgggaaa agcgtcaaga ccacagttag 300
 gcagagcttt atagtacctt agaagagaag ggagcacaaa gagtctagtt ctgccgtcct 360
 actccctaca gtggggctag tgtgggataat tctttattgg aagtagatga ccctctcttt 420
 tcaaatggca gcacctctgt attatgagaa taccaggctc ttatgcagggt gtccaatcat 480
 tttgtccaca ggcaaaaatg atattttccc tttctaacag cttctcaggg agctctgcac 540
 ttaaagtgat ttgcatttca ttgctaaagg gaaaatgtgt agcctttatg tcagcatttc 600
 ctctctcctt tttagggcag cagctggatg aattcctaca gctagctgtg gacaaagtgg 660
 aggctggcct gggctctggg ccctgtcgta gtcaggcctt cactcttctt ctctgggtaa 720
 ggagttggag tggagtctgg ttagccagag aggcaattat gtctgggtta ataaaatgtc 780
 cctgtttgac cctaaaccat aaacatctat gtctcagggt tctcgggttt gagtgtcatt 840
 ccccaattgc tctctctgtc tccaattaca ggtaacaaag gccctagtgc tcagatacca 900
 tcctctcagc tcctgcctta cagcccgggt acgtcctttc tggagacaga agaaccagg 960
 acctaataca actttcttgt tgctcctatt cctcccaagg acttccatcc tcccctgtgt 1020
 gtttttttgt ttcttttctt ttttcttttt ggagacaggg tcttactctg tcaccaggc 1080
 tggagtagac tagtgcaatc acagctcact ccagcctcaa cctccgtagg ctcaagtgat 1140
 cctccactt cagcctcgca agtagctggg actacagggg caccaccacca caccacca 1200
 atgtttgtat tttttgtaag aactgggttt ggccatgttg ccagactcc tagactcaag 1260
 cagtcacact gccttggcct cccaaagtgc taggattaca ggcatgagcc accacaccg 1320
 gccccatcct tatctttggc acttaagatt cttcttccct gatgtacctc aaaggctctt 1380
 ttttctccag ctcatgggct tcctgagtga cccagaatta ggtccagcag cagctgatgg 1440
 cttctctctg ctcatgtctg actgcactga tgtgtgact cgtgctggcc atgccgaagt 1500

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|------------|------|
| gcggatcatg | ttccgccagc | ggttcttcac | agataatgtg | cctgctttgg | tccagggtct | 1560 |
| ccatgctgct | ccccagggtg | aggagtctga | aagaagggtcc | ccacatatac | acatctctcc | 1620 |
| tttgcttggc | cacattccct | aagataatth | agggcccgtc | tgcttcttta | gagctatatt | 1680 |
| gtggctctgt | cctagaagac | taaacttcta | gattcttgtc | ccacttcttc | ctttcatggg | 1740 |
| cgtatcttgc | ttattctgag | cgtgaagggc | tctttcaccc | gtttgtaggc | tgatgtctca | 1800 |
| gcctcaccac | agattggaat | tgatttctca | agctatatac | ctaagtccaa | tttctcccct | 1860 |
| aagcctttcc | atthttttaca | gatgtgaagc | caaactactt | gaagggtctt | tctcatgtac | 1920 |
| ttaacaggct | gcccaggcct | gtactcttgc | cagagctgcc | cacggtaagt | cccacaggca | 1980 |
| gagcttctaa | gcaaaggaca | aagctttctt | ccccagatgg | ggctagaaag | gggaggggaa | 2040 |
| aagaaccagg | atcttcatga | tgtggccatc | ccctaccttg | cccattgccc | cttagcttct | 2100 |
| ttccttgcct | ctggaggccc | tgtcctgccc | tgactgtgtg | gtgcagctct | ccaccctcag | 2160 |
| ctgccttcag | cctcttctac | tggagacacc | ccaagtcagt | agtcttcacg | tggacaccct | 2220 |
| cgtcaccaag | tttctgaacc | tcagctctag | cccttccatg | gtgcgttgag | ccccagcaac | 2280 |
| tcttaggcac | cagcatctct | ccctgggcat | gctctcacct | ccttgtgggt | gtgttccagg | 2340 |
| ctgtccggat | cgccgcactg | cagtgcacgc | atgctctcac | tcgcctgccc | acccctgtgg | 2400 |
| taagtacctc | aggtgtcctt | ccctggcctg | ggaacatctc | aagagacaca | taagtacctt | 2460 |
| tttgcccttag | tcagggtgggc | ttggccaccc | tggtgtgtaa | ttgagatctg | aattacaagg | 2520 |
| tacagatctt | ggaattcttg | gcccaggcat | tctttttctt | gggccagaaa | ggtaacagaa | 2580 |
| aggccatcct | gccacttaac | atcccttgga | atcactaaag | atgttttgct | ttcctcagaa | 2640 |
| tattagtgtt | acagaatcaa | aaaagcggta | ctttcagttg | ccttgatga | gcaagggtga | 2700 |
| ttatatcctc | tgactccaca | gctgctgccg | tacaaaccac | aggtgattcg | ggccttagcc | 2760 |
| aaacccctgg | atgacaagaa | gagactgggtg | cgcaagggaag | cagtgtcagc | cagaggggag | 2820 |
| tggtgagttt | ctaggtcgtg | gggagagatg | ggaccaagat | gagcctcatc | actaatgctg | 2880 |
| ccaactttct | ttttgcctac | aggtttctgt | tggggagccc | tggcagctga | gccctcagtc | 2940 |
| ctggccctaga | ctgttctgac | aatctaacct | gggattacta | actgttgagc | catcttcccc | 3000 |
| aaagcaggga | aaccactggt | ctctgactgc | ctttcccaca | gacacagcac | aaatgctagg | 3060 |
| cctctgttgc | atggctgtac | aaagaacata | agagtccata | tttctagtgg | atthgtaaaa | 3120 |
| taagtgtgtg | tgagacactt | gcgtttgaag | aaagatctag | ggtcctgggt | ctcttgcatt | 3180 |
| tatatgtcag | aaaagggggc | atatgctgct | gaggggtgag | tgcatatgag | tgtggccctg | 3240 |
| aggaccagg | ctggcagatg | ttgtctacct | gctgaagaat | aaagatttct | tttggtaatg | 3300 |
| gggctgtcag | atatthcccc | cacccccacat | atgcctcata | taaccagagg | catcactgga | 3360 |
| ataacaatga | cagggatttg | ccaaaaatth | ttcagggtaa | ccaggacagt | agcacatgcc | 3420 |
| tgtaacccca | acacttcagg | aggctgaggc | aggcggatca | cttgaggcta | ggagtttgag | 3480 |
| actagccctg | gcagtatagc | aagaacccat | ctctacaaat | aattaaaaaa | aaaaaa | 3536 |

<210> 12430

<211> 19842

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (2039)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (2064)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (2065)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (2067)

<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (2068)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (2070)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (2085)
 <223> n equals a,t,g, or c

<400> 12430

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| agcctgtgtg | tggccctgcc | cccagggctg | gctgtttctg | tgcttaaagc | catcttccag | 60 |
| gaagtgcattg | tacaggtgag | ggataacagt | catgtttgta | ttctcctctg | tctctacccc | 120 |
| ttgacataac | tgggattcaa | tagcaaaaat | tattgccttc | taagttctga | attcttttgg | 180 |
| atcttgtgaa | tggttttatg | ctcttcttca | gtatgtttat | atgctcatct | ttgttattgg | 240 |
| acaaggaaaag | gggtgcatgc | cattagatct | gacctgtgtc | ctcttatacc | tacagaaaag | 300 |
| aaggcatccc | tctgtcaggc | aggtttgaat | tattggcacc | actgctgtgc | tgctgagtca | 360 |
| atatccatac | cctttctctg | tagtttctct | tagattgatc | ttatgctggt | ataaagagca | 420 |
| ctgttcactt | agagattatg | aagcaggaac | tagctgtgtc | agctgaggta | ttctttgagc | 480 |
| atcttcttca | cttctttctc | ccccaccccc | aagtccctgc | cacaggtgga | ccgacacaca | 540 |
| gtctacaata | tcatcaccaa | ttttatgcga | acccgggaag | aaggtaagag | acagagcttt | 600 |
| ctgggaaatg | tcaaaagcaa | gcacatccta | ctttttcccc | tattagtagg | actcatttta | 660 |
| cctgggggta | tatagaagag | ctggtatcct | gagagagaat | gataaaggga | aagagggggg | 720 |
| ctgtcccttc | ccagtgaagt | aaagaaaagg | tagagtttgt | ttgagccagt | gttttaaat | 780 |
| cttgccctcca | cagcaatgtg | tatatgttg | cacatctctt | cactgagtac | tttcttgga | 840 |
| tggaaaaagg | gtcagccctg | aagagaaaagg | ggaggcaatg | atagcagagg | gagaacacag | 900 |
| gctaggagaa | agcccacact | ttctgtgtctg | tgggacagta | tagtaacctt | attctctcct | 960 |
| tcccagagct | aaagagccta | ggagctgact | tcacctttgg | cttcatccag | gtgatggatg | 1020 |
| gggaaaagga | tccccgtaat | cttctgggtg | ccttccgcat | cgtccatgac | ctcatctcca | 1080 |
| gggactatag | cctgggtata | tcgtggtagc | catgattagc | tcattggagc | tttatcagat | 1140 |
| gagtgaagct | gataaaccac | cctcattttt | tctctgttgc | cacaggacct | tttgtggagg | 1200 |
| agtgttttga | agtgcacatc | tggtatttcc | ctatcgattt | tacctctgta | agtagcacct | 1260 |
| tcattgtttg | atcatattat | tattgagtgt | ctgctatgtg | ccaagccctg | ttctgggcac | 1320 |
| tgagggtaca | ggtcaccaa | atagacatcc | ccgcccctcat | tattttatat | tttaataaac | 1380 |
| taggaaatgg | aaaagcattt | gacatatgag | gaatgattca | aagcagcatg | tattgggggg | 1440 |
| aattcttaag | ctccttaaca | ctgtatttag | tgctgaaggc | tacaggattg | caaaacactg | 1500 |
| tccctgccct | tgaaggctga | aacattttaag | taacaatagg | agattaggta | ggaaaatgag | 1560 |
| tagtactata | gctgttcaga | gaagacaaaa | gttcagtgtg | agctagagta | ggcaggaact | 1620 |
| gacttcacag | ttaagatagg | atttcagctg | gtttgtgagg | gatgcagaag | atatgattct | 1680 |
| ggagtgtggac | agggcatctc | aggctataga | aacaaaagtga | caaaacaaag | aaggcacaat | 1740 |
| tgtgcacagt | gtacagaagg | tatttgctct | gacctcttg | ggccttctc | ccattctgca | 1800 |
| gttgagttcc | cttctactgc | caaataactca | agagtttcat | caccgtgtgg | gtgtgtgtgc | 1860 |
| tgcaagcatt | agtggtttga | aagaaataaa | aggcattcta | ttgcagcatg | ccaaacagca | 1920 |
| tattgactct | cactgccttt | ataatgacac | caccatcttt | gctgtaggga | atttcttacc | 1980 |
| agcttatttc | agttgacatt | atgttactgg | ggaccacctg | tctcctgaaa | tgaatctana | 2040 |
| aaaaaaaaaa | atcttctctt | ttcnnanncn | aaccttattc | ttgtnaggct | ttgaaagatc | 2100 |
| ctgggttagc | tcccacattc | ttctgttttt | actttggttt | ttttgggtgtg | tgtgtttctt | 2160 |
| ttttgtttgt | tttgggtttg | tttttgcttt | tttgagatgg | agtctcgctc | tgtctcccag | 2220 |
| gctggagtgc | agtgggtgtg | tctcgactca | ctgcaacctc | cgctcctggg | gttcaagcaa | 2280 |
| ttctcctgcc | tcagcctccc | aagttagctgg | gattacaggt | gccaccacc | atgccggct | 2340 |
| aatttttcta | tttttagtag | aaatgggggt | tcaccatctt | gaccaggctg | atattgaacc | 2400 |
| cctgacttcg | tgatccaact | gcctcggcct | cccaaagtgc | tgggattaca | ggcgtgggccc | 2460 |
| accatgccca | gcctttactt | tgttttatct | tgtgttttgt | gttgggtttt | aaaagataat | 2520 |
| tcattcacat | gattcaaagt | ccaaaagggt | gagaaatctc | cctaccatct | ttttttctcc | 2580 |
| ataatcaacc | aagttatcag | ttatgtttgt | atctttacag | agctttttca | tctatatgta | 2640 |
| agcaaatgct | tttaccacca | ccccctaaa | atcaatgtgt | gcacatgcgg | gcatgtacac | 2700 |

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|------|
| acacacacac | acacacttct | cctgtacttt | gcttttttca | ctgaacacta | tgtcttggag | 2760 |
| agtgttccac | gtcagtatat | aagttagctc | tttcattctt | tatggctgca | taatattcct | 2820 |
| ttggccggaa | ataatgaata | atttcactag | tcctctgtgg | attgttgcta | atcttttgct | 2880 |
| gttatgagca | gtgctacaac | tttcatacat | atgaatataa | tgatagaata | aattcctaaa | 2940 |
| agaaatcgct | aggtcaaaga | atatgtgcat | ttataatttg | ggggagagga | acagtatttc | 3000 |
| atccattttt | ttgaaagggt | atacaatgag | catgattcag | catttaaagg | gtagataaatt | 3060 |
| aaacttcttt | catacccctt | tactgctact | gtccattttc | ccattagaaa | caatcactgt | 3120 |
| tcacagctgt | ttattttcac | agagataatc | taggcaaaat | aaacttacag | ataatattag | 3180 |
| gaagatttct | ctcattcaag | cagatttttg | tatgttgttc | tgcactgcag | tctatcagaa | 3240 |
| gcagaaagct | cttatcaaga | tattaattaa | aacagagaca | cttggcttta | gtgtaactat | 3300 |
| ttgagttaca | aatactcttt | attgtcttac | aaatcagggg | ttttattggt | gttggttctg | 3360 |
| ttctgttttg | ttttgttttt | cagacagggg | ctcactctgt | tgcccagggt | ggagtgcagt | 3420 |
| aacacaatcc | ttgctcactg | caacccctgc | ctccgggggt | cgagtgattg | ttgtgcctca | 3480 |
| gccacctgaa | tagctgggat | tacagtacgt | gccacgggtc | ctgactaatt | ttttttttat | 3540 |
| attttttagt | agagatgggg | ttttgccatg | ttgtccagggt | tggctctcgaa | ctcctcacct | 3600 |
| caactgatct | acctgcctcg | gcctcccaaa | gtgctgggat | tacacgtgtg | agccacatat | 3660 |
| ccagccacaa | atcagtattg | tgtgccatca | tagtggatct | gatgagctta | aggttcagtt | 3720 |
| tcttcactat | gcttatatgc | tcactctaag | aagagggttg | caaacttttt | ctttcccttt | 3780 |
| tttttttttt | tttttgaggc | aggctggagt | gtagtggcac | catcacagct | cactgcagcc | 3840 |
| tccacctctc | tggactctgg | tactctgggt | atcctcccac | ccctgcctcc | cgagtagctg | 3900 |
| gaaccatagg | cacatgacac | tactcccagc | taattgttgt | atttttctat | agagacagga | 3960 |
| ttttgccatg | ttgcccaggc | tggctctgaa | ttcctgggct | caagccatcc | acctgcctcg | 4020 |
| acttcccaaa | gtgttgggat | tacaggcata | agccaccatg | cctggccaac | tttttctata | 4080 |
| aaaggccaga | cagtagcttt | gtgggtcata | tggctcctc | aactctgctg | ttactgcaca | 4140 |
| aaaacagcct | tagacacagg | aacagctaca | gtagctatat | cccaatagaa | cttttgttat | 4200 |
| caacactaaa | ctttgaattt | catataattt | tcacttgtca | caagatattc | ttttggtttg | 4260 |
| tttcaaacat | taaaaatggt | aaaaccattc | ttagccaaac | aatgtcaaca | ggttgatttt | 4320 |
| tactccta | gcagagtaga | tattggttct | tccttcaccg | tcacctctaga | ttcccttatc | 4380 |
| ctttttcttg | gacagatct | cctgtttctt | gagttcacat | attcctcatt | ttgtggttta | 4440 |
| ccccctcagt | ttgatgggtg | acttccctta | gtattttcct | gagagaatgt | atgaagaagt | 4500 |
| gagaattttt | tagatttgta | acccttaaat | gccttcaatc | ttgtctctca | tttttgacat | 4560 |
| tatgggcatg | taattcaaga | atagaaattc | taggccgggc | gcagtggctc | acacctgtaa | 4620 |
| tctaagcact | ttaagaggcc | gaggcggtg | gatcacttga | ggtcaggagt | tcgagactag | 4680 |
| cctgaccaac | atgggtggaat | cccgctctca | ctagaaatac | aaaaattagc | taggcgtggg | 4740 |
| agcaggcgcc | tgtaatctca | gctacttggg | aggctgaggc | aggagaattg | cttgaacctg | 4800 |
| ggaggcggag | gttacagtga | gccgagatca | cgccattgca | ctccagctta | ggcaacaaga | 4860 |
| gtaaaactcc | atctcaaaaa | aaaaaataaa | taaaaagaga | attctagctg | gatgcagttg | 4920 |
| cacatgtctg | cagtcaccag | tacttgtgag | gctgaggcag | aacaatcact | tgaggccagg | 4980 |
| agtttgaggc | tgtagtgcac | tatgattgca | cctgagaaag | aggccagggt | cagtaactga | 5040 |
| cgcttgtaat | cccgctactt | tgggagggtg | aggcagggtg | attgcttgag | ctcaggagtt | 5100 |
| caagaccagc | ccgggcacca | tggcaaaacc | ttgtctataa | gaaatacaaa | aattaactgg | 5160 |
| gcgtgggtgg | cgagtctgta | gcccctgcta | ctcgggagggt | ggagggtggga | ggatggcttg | 5220 |
| ggctggggag | gcagagggtg | cattgagcca | agatcatgcc | tctgcactcc | agcctggaag | 5280 |
| acagagccag | actcagtcac | caaaaaacca | aaaacaaaaa | caaaaaaaaa | atggaaatta | 5340 |
| ttttctccta | agattttgaa | ggcattgcta | catttaaattc | tagttatttg | ctgggcgtgg | 5400 |
| tggctcatgc | ctgtaattct | aacacttcga | aaggccaagg | caggcgggat | acctgaggtc | 5460 |
| aggagttcaa | gaccagcctg | gctaacatgg | tgaaccacca | ttctacttaa | aaatacaaaa | 5520 |
| aaattagccg | ggcatgggtg | cgtgagcctg | taatcccagc | cactcgggag | acaggcagga | 5580 |
| gaatcgcttg | aatcctggag | gcagaggctg | cagtgaagcca | agatcggtgc | attgcactcc | 5640 |
| agcttggtga | acaagagcaa | aactccatct | caaataaata | aataagccta | gttatctagt | 5700 |
| tttcatttgc | tgtggagaag | tctgaatttc | ttctgtttca | taaacttttg | tatttaccat | 5760 |
| ttttttcttc | ctctctataa | actgatgttt | ggttcaccct | gatacattga | aacttcacag | 5820 |
| tgatgtgctt | tagtattggg | ctatttcatg | tactgtgttg | ggtacttagt | aggccctgtc | 5880 |
| aatctggtaa | cccggtgcca | ttagtctgtt | aaatttttct | tgaattcttt | aattgatgat | 5940 |
| ttcttctctc | ctcttttctc | ttttggaact | ttttggaact | ctcatttaac | ttctgttgga | 6000 |
| cctctgattt | tctgaccttt | tgttttctat | tttgtacctc | tgtctttttg | ttactttata | 6060 |
| agagaattcc | acagttttat | cttttctatc | aaagtccagt | catgaaaaca | gaaaccaggc | 6120 |
| caggttcggt | ggcttacgcc | tgtaatccca | gcacttcggg | aggctgagggt | gggtggatca | 6180 |
| ttcgagggtca | ggagttccag | accagcctgg | ccaacatgat | gaaaccccat | gtctacaaaa | 6240 |
| aatatataaa | aattagccag | gtgtgttggt | gcgcctgtaa | ccccagctac | ttgggagggt | 6300 |
| gagacatgag | aatcacttga | acctaggagg | tggagggtgc | actgagctag | gatcaagcca | 6360 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|-------|
| ctgcaatcca | gcatgggtga | cagagtgaga | ctctgtctca | aaaaaaaata | ataataataa | 6420 |
| tagtaaatcc | cttctttttac | tatgtttttg | gtggagtttg | caaagaggaa | aaggaaaacc | 6480 |
| tgatatatgt | tttcagttctg | tcgtcttggg | acagaaacca | tcaaggcttt | ctgtttttcag | 6540 |
| aattacagct | ttttataaag | gtgaaaaaaa | tggaaatgtc | catcaacaag | gaattatcta | 6600 |
| gataaactgg | tacaaccaca | aaatgaaatc | atagccacta | aaactaatgc | tatgaaagaa | 6660 |
| taataccata | aaaatgttct | taatatgtta | agtgaaaaaa | attaaaaacc | acatgtacaa | 6720 |
| aatgattttt | aagtatatat | atattttata | tggaaacagt | atatactagc | acatagtaac | 6780 |
| aatatatatc | agcgaagaaa | ggaatacacc | agaaagttaa | gcatgcttat | ttctgagtgg | 6840 |
| tgaaatgata | gaaaatgtgt | aatcagattt | tttaaaatgc | ctaaagacaa | aagttcccaa | 6900 |
| ggagtaccta | agatcaagca | agtcttcttg | ctggggcctc | attatcttac | tatcttccct | 6960 |
| gattgggtat | gagtatcacc | ctgttctgca | gggttaccag | gttcgagcct | gtgttcaagg | 7020 |
| tggtctgaaa | tgttacacaa | acccacagcc | cttctccctt | ttccagccac | ctaattgatcc | 7080 |
| ccatgggtatc | cagagagaag | acctcatcct | gagtcttcgc | gctgtgctgg | cttctacacc | 7140 |
| acgatttgct | gaggtgggtc | tagccaaggt | tagggatatc | agcctctgcc | catagatggc | 7200 |
| tctgaagaaa | gagcagtaaa | agcatggaga | aaaaaatatc | tggtatacat | tttagggcat | 7260 |
| gacaccctgc | aagtgtcttg | tgtggcaggt | atcttcagac | cttcgatgta | gaaaacttta | 7320 |
| ccatctcttc | ataatccaga | gctggattca | gtggcacaca | cctatagtcc | cagctactca | 7380 |
| ggaggagtct | gagtggaaaag | gatcacttaa | acccaggagt | tcaaattccag | cctgggcaac | 7440 |
| atagggagac | ctcgtctccg | ctacacaaaa | aaataaataa | acccaatccc | tatatgggtgc | 7500 |
| tgtcttttaa | aatcctgtaa | ctttgtcaac | ttgcctgttt | ttgaggtagt | ggggctctgg | 7560 |
| tcactgcttg | gcaggaaagt | tagctttacat | tcatagctcc | tgacttgagt | acagctcctt | 7620 |
| gatgtagtac | ctgctttttag | ggactgatgg | caaggacagg | gttgaccttg | atgtgactga | 7680 |
| cacaccaccc | atctcagggt | taagatcttc | cttctgtccc | acagtttctg | ctgcccctgt | 7740 |
| tgattgagaa | agtggattct | gaggttctga | gtgccaagtt | ggattctcta | cagactctgg | 7800 |
| tgagtgattt | ttctccttgc | aggaccagc | taccttttga | caagttaggg | gtcctaaagg | 7860 |
| atatagattc | taggatagcc | aaggaacagt | tcatgggcct | cagaagagga | taccaggat | 7920 |
| ttgggccttt | gtgtcgacct | gaagccccc | gctgcatatc | gtcgtgtccc | atcccccatc | 7980 |
| ccatagtaac | tgaggaaaag | ctgaccagga | ctccctcttt | aggcttctat | tttatcaacc | 8040 |
| agggttatct | cctacttctc | tgttccctta | gtaggactgt | taaaaatctt | aactggtttt | 8100 |
| tctgctgaga | ccagggtccc | ttcagggtcc | attatgtcta | ggtacctgca | catctagggt | 8160 |
| tgtctgagtg | tgtacataac | tgatagcagc | ggtttccctg | gcagaatgct | tgctgtgtcg | 8220 |
| tgtatggaca | gaaggaaactg | aaggacttcc | tccccagcct | ttgggcttct | atccgcagag | 8280 |
| aggtgagtg | cactcagata | aactcactac | tgttaacttt | caattgtcag | gcatgagggg | 8340 |
| aaataatata | tcctgtcctt | ttccctctgt | catccccagg | gccaagatat | aatgcctggg | 8400 |
| tattcaggag | gcaagtaggg | ggacataaatt | ctagtgaat | gacaagagag | agagtcccta | 8460 |
| tgtgacggtc | agctgcttgg | taagagcagc | tgatcacctt | tgacattac | ccacttcttg | 8520 |
| tccttctgtg | gcaaggagtg | cagggtcatgg | tgcttttggc | accatgggtga | atagaaaagg | 8580 |
| gagcagagcc | actgctcaga | gttggtcttt | tgtttctcag | aaagtatgtg | tctctgtcct | 8640 |
| gagtgtgact | aaggacttgg | taagaacaca | ccaattgaga | agacactcag | ttgggggtgt | 8700 |
| aatttccatt | tctgtgtcct | agaggttctc | actccctctc | ccaacaagga | aataggcagt | 8760 |
| ggattgggtg | ggtctcatct | ggtgcaggct | cacctcagta | gccatgggat | ccctccctga | 8820 |
| caggtgttcc | agacggcaag | tgagcgggtg | gaggcagagg | gcctggcgcc | cctccactcc | 8880 |
| ctgactgcgt | gtttgtctcg | ctctgtgtcg | agggctgatg | ctgaggacct | ccttgactcc | 8940 |
| ttccttagca | acattctaca | gggtaatggg | gccgtggcag | ccaggaaggg | gagtgagcac | 9000 |
| aatagaaacg | acattccttg | cctgggtgcg | gtggctcacg | cctgtaatcc | ctgcaactta | 9060 |
| ggaggccgag | gcgggtggat | cacctgaggt | caggagttaa | agaccagcct | ggccaacatg | 9120 |
| gtgaaacctc | gtctctacta | aaaatacaaa | aattagccgg | gcgtgggtgg | ggacgcctgt | 9180 |
| aatcccagct | actcgggagg | ctgaggcagg | agaatcgctt | gaaaaggcag | aggttgcggt | 9240 |
| gagctgagat | tgcgccactg | cactccagct | tgggcaacga | gagcaaaaact | ccatctctaa | 9300 |
| aaaaaaaaca | aatgacattc | cttaagggcc | agtgaacctt | attgttttagt | cccaacatat | 9360 |
| ttgggtgattt | gggggcgata | gccctacttt | gaattgaaaa | caatttgagt | gttaactgct | 9420 |
| tgcaaaactgt | catgggtctc | agtctccaac | ctctgtggac | tgtagggggag | tcaggcacca | 9480 |
| tttggcctcc | tccccagctc | tgtgatgtgc | tgcttctcta | gactgcaggc | accacctgtg | 9540 |
| tgaaccggac | atgaaactgg | tgtggcctag | tgccaagctg | ttgcaggcag | ctgcagggtg | 9600 |
| atctgcccgg | gcctgtgact | ctgtcaccag | caatgtactg | cctttactgc | tggaacagtt | 9660 |
| ccacaagcac | agtcaggtaa | gggagcagaa | tctttggggg | aaatgatggg | acctgtgtgc | 9720 |
| taggttccct | ttctcagaga | gtgagctaag | ttttagcttg | ggccaacata | gtagaccttg | 9780 |
| ggttttgctc | ccattaactg | ctgctgtctg | ttcccttact | cactttttcc | ctgtctcata | 9840 |
| cataaaaagga | tcattctccc | aagacaggag | gatagcttga | agccaggagt | tcaagatcag | 9900 |
| cctgggcaac | aaagttagat | cccattctcta | aaaaaaaaaa | aatttttttt | aaattagcca | 9960 |
| agcaggacat | gctggttcat | gcctgtaatc | ccagcacttt | aggagaccaa | ggcaggacaa | 10020 |

| | | | | | | |
|-------------|-------------|------------|-------------|-------------|-------------|-------|
| tcacttgagg | ctaggatttta | aagaccagct | tgggcaacaa | gacaagacca | catctctaca | 10080 |
| aaaaaaaaa | aaaaaaatta | gctggataag | gtggcagca | tctgtagtcc | cagctactca | 10140 |
| agaggctgag | gcgagagaat | cacttgaacc | taggaggtcg | gggctgcagg | gagctataat | 10200 |
| catgctactg | tattccagcc | tggctgtggc | atagcaaaac | ccccatctct | tggaaagaaag | 10260 |
| aaagaatttt | ccctatatcc | agagtagcag | gattgaaatc | ctttaaaata | ttctttgact | 10320 |
| ctagtacccc | ttgaaacgtt | acagagcagc | cagcggcgga | caatccttga | aatgctcctg | 10380 |
| ggtttcttga | agctgcagca | gaaatggagc | tatgaagaca | aaggtagagg | tgccttccat | 10440 |
| tgcagtgtct | tggggactgt | tgaacacttc | agcctataaa | ggatagcagg | gcaaagagtg | 10500 |
| ctgtggaaaa | gtagtctaga | acagtgggtc | tattctgagg | ttgtagcaca | agagaacact | 10560 |
| taacagatga | gatggatgag | atctgtttat | ttttctcagt | gtgctttctg | gatacccaat | 10620 |
| ggattaagct | ctttaaatct | gccccaggag | gcggggcatg | gtggctcaca | cctataatcc | 10680 |
| cagcactttg | gtaggctaag | gcaggcggaa | aacttgagg | taggagttcg | agaccagcct | 10740 |
| ggccaatatg | gtgaaaccct | gtctctacta | aaaatacaaa | aattagccag | gcctgttggc | 10800 |
| acatgcctgt | aattccagct | actcgggagg | ctgaggcagg | agaatggctt | gaacctggga | 10860 |
| ggcagaggct | gcagtgatcc | gagattacgc | cactgcactc | cagcctgggc | aacagaggcc | 10920 |
| ttgtctcaaa | aaaaaaatct | accccagggt | ggctgtgtat | cacagcttag | tcagggatat | 10980 |
| ggaatgcagt | ggcttccttc | taacctggcc | tctgtctctt | ccctagatca | aaggcctctg | 11040 |
| aatggcttca | aggaccagct | gtgctcactg | gtattcatgg | ctctaacaga | ccccagcacc | 11100 |
| cagcttcagc | ttgttggcat | ccgtacactg | acagtcttgg | gtgcccagcc | aggtacatct | 11160 |
| taagggaaag | agaagaggaa | aatatgggtc | cttttcttgt | aagactgcct | tggtgaaaag | 11220 |
| cagccttact | atcctcttct | tacttgatt | ctggatgatt | tgggatttct | aataagagct | 11280 |
| tagaagggtt | gtgatggctg | caggggaaga | aagatgagat | tcatgttccc | ttctaactac | 11340 |
| agatctccta | tcttatgagg | acttggagct | ggcagtgggt | cacctgtaca | gactgagctt | 11400 |
| cctgaaggag | gattcccaga | gttggtgaga | atttaaagca | atgagataga | gcaagctgtt | 11460 |
| ccctgcctct | gtattggcag | caaaagatca | agctaggacc | agggctctgt | gcttctgacc | 11520 |
| cttggctctc | cttaggggag | gtgagctctg | tgttagactc | tggctgctaa | ccagttggag | 11580 |
| agatgtagga | ctgctctctt | cttaggcttt | aagaagccct | gtccaactca | gtggtgtagg | 11640 |
| tacttgagtt | ctgctcttta | gcaaggaggc | gttgggagct | cacactcctg | aatctgccta | 11700 |
| atatcagacg | taggcaagag | agctgtgagc | ccaggctcag | ccaatgctta | tctgctctgc | 11760 |
| gcctccagca | gggtggcagc | actggaagca | tcaggaacct | tggctgctct | ctacctgtg | 11820 |
| gccttcagca | gccacctcgt | acccaagctc | gctgaggagc | tgcgtgtagg | tatgtgtctc | 11880 |
| taatcctctg | tggcccatcc | ctttccagca | aggctttggg | gccttcgtgc | ttcctatcac | 11940 |
| acagtaaacc | tttgtctcat | gggttgcttt | caggggagtc | aaatttgact | aacggagatg | 12000 |
| agcccaccca | atgctcccgg | catctgtgct | gtctgcaagc | cttgtcagct | gtatcaacac | 12060 |
| atcccagcat | cgtcaaggag | acactgcctc | tgctgctgca | gcatctctgg | caagtgaaca | 12120 |
| gaggttaacta | ctaggaataa | ccaccaacgg | actgggctga | atagggagct | gtagtctcta | 12180 |
| aggcagtgg | tctagctgta | gctatacata | agagtaacag | aatcaactct | tttaaaagaa | 12240 |
| aaaaaaaata | ctgatgcctg | cgtccaactg | aatcagctc | tgaggaggga | tgggacttag | 12300 |
| gcaacagtac | tattaagagt | acccggcag | ggcgtgctg | cttgccctgta | atctcagcac | 12360 |
| tttgggaggc | cgaggccagc | agatcacttg | aggtcaggaa | tttgagacca | acttagccaa | 12420 |
| catggagaaa | cccagtctct | actaaaaata | caaaaaatta | gctgggcatg | gtggcatgcg | 12480 |
| cctgtaatcc | cagctactgg | ggaggctgag | gcaggagaat | ctcttgaacc | cacaaggcgg | 12540 |
| aggttgcagc | gagctgagat | tgcgccactg | tactccagcc | tggccagcct | gggcaataga | 12600 |
| gtgaaactct | atctcaaaag | aaaaaaaagg | ttgggctcag | tggcacatgc | ctataatccc | 12660 |
| agcacttttg | gaggctgagg | cgggtggatc | acaaggctcag | gagtttgaga | ccagcctgac | 12720 |
| caacatgggt | caatcccgtc | tctactaaaa | attatctgg | catggtggca | ggcgccctgta | 12780 |
| atcccagcta | ctcaggaggc | tgaggcagga | taatcgtttg | aacctgggag | gcggaggttg | 12840 |
| cagtgaacca | agatcatgcc | attgcactca | cacctgggca | aacagggtga | aactccatct | 12900 |
| caaaaaagaa | aaaaaaaaagt | gccgggctgg | gtgtgggtgg | tcagtgcctgt | aatcccagca | 12960 |
| ctttgggagg | ccaaggctga | tggatcactt | gagctcaaga | gtttgagacc | taaccagccg | 13020 |
| atgcaacatg | gcgaaaccgc | atctctacaa | aaaatacaaa | aattagccag | gagcagtggc | 13080 |
| atgcacctgt | agtcccagct | acttgggagg | ctaaggcagg | agaatcactt | tgagcccggg | 13140 |
| aggcagagg | tggagcaagc | cgagatcgct | ccattgcact | ccagcctgac | ctgggcaaca | 13200 |
| ggagtgaagc | cctgtctcca | aaaaaaaaaa | aaaaaattac | ctaggttaatt | ttcatgtggg | 13260 |
| atctgaattg | agaggcatca | ccctaaggcc | gtggtgctca | aaagatggtc | tgtaaccag | 13320 |
| cagcatgggt | gacatctggg | agcttgttag | aagtcagaa | tctcaggccc | tcactgatca | 13380 |
| gaatctgcat | tttgacagtg | taccctggta | actcgtgagc | tgttgagttt | gagaagcact | 13440 |
| gctccaatgc | aaaagtgaca | gcagcctgcc | ctgtgggtag | attcaggccc | actgtgggtg | 13500 |
| atccagcagc | tgttacatag | tagaatgaat | actagacttg | gattataact | tgggcttgat | 13560 |
| tcctgacttt | gcacttcctg | tgacctgga | aaagccactg | atcatgtatt | tcattgtgcc | 13620 |
| tccatgtcct | tctctataga | gtgagggaaa | tgatacttct | aaggttgtta | tgaaaaataa | 13680 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| ggagagaata | tatacaagtg | cttctgctgc | agagcctggg | acagagcaag | tctcaactat | 13740 |
| gaagtctgaa | tagatcagaa | agaacagcca | ggagaataaa | gtgactcagc | tttttaataa | 13800 |
| ggcactcttg | gtcccttcag | tcactcttct | ttgttctctt | catctgctgt | gtaattggaa | 13860 |
| acacctgaaa | gtgcttttaa | gcaaaccctta | cagagaacac | tttctcatca | acagggaata | 13920 |
| tgggtgcaca | atccagtgac | gttattgctg | tctgtcagag | cctcagacag | atggcagaaa | 13980 |
| aatgtcagca | ggaccctgag | agttgctggt | atttccacca | gacagctata | ccttgccctgc | 14040 |
| ttgccttggc | tgtgcaggcc | tctatgccag | gtaactttcc | acctctcctt | cctggccttt | 14100 |
| gggaactttg | ccctctgctg | gtggtgaaca | gcaccaccct | ctgggtattg | gtgggtactgt | 14160 |
| attttgtacc | atcagaggtt | tattttcaat | cctttgtcct | cagagtgaga | tttcacttca | 14220 |
| tagcaaaggg | tgccaccctg | accagtgcca | ggaacccaaa | tccactagt | ttagcaacat | 14280 |
| tcaaaagaa | gcacaccttt | tccccatgaa | gtgctatgtg | attagtttac | ttagaattgg | 14340 |
| actctggagt | caagcccacc | tggttggtt | ttatcctcaa | ctctaccact | tgctaactta | 14400 |
| ggtgaagata | ttcagccttt | ccacgcttca | atttctcac | ttgtaagatg | gagataaaga | 14460 |
| gtaccgtcta | ggctggcgcc | atggttcaca | cctgtaatcc | cagcacttca | ggaggccaag | 14520 |
| atgggaggat | cacttgagtc | caggagtttg | agaccagcct | gggcaacaca | ggggaccctg | 14580 |
| tttctacaaa | tagtcagaca | tagtggtgca | cacctatagt | cccagctgct | caagaggctg | 14640 |
| aggtggggagg | atcacctgag | cccaggagtt | caaggctgca | gtgaggcatg | attgtgcctc | 14700 |
| tgcactcgag | cctgggtgac | agagcgagat | cctgttctctg | tctcaaaaaa | aaaaaaaaaa | 14760 |
| aaaactgttt | cacagggtag | ttggtgaagga | ttaaataagt | tagtgtatag | tacctgccac | 14820 |
| ataggaagta | ctcagtgat | gatagttgct | ataaataata | aggacccatg | aagataaatc | 14880 |
| tatgttttta | attttttcag | agaccaacat | tactattttt | tttctcttgc | atctccaggg | 14940 |
| acaccagggga | caacattttct | atttcttatg | ttaagaatgt | tcactcttagc | tatccctctt | 15000 |
| tcccactgtt | ggcctagtct | aaagactgtg | cagagtcttc | aggagcgctc | tgtggcccca | 15060 |
| ggtcagacca | ctcctgtttc | tggtgcctctg | attctcagga | ctatagcact | accagagacc | 15120 |
| agattaagaa | ctgctgtcgt | ggctagagtc | aagccccaga | gtcagtgatg | ctgacagAAC | 15180 |
| ccaatcatte | atttcttgaa | cccgtcatgg | tcttgtgatt | gtgtgcatgt | gtgtgtgttt | 15240 |
| tgcagagaag | gagccctcag | ttctgagaaa | agtactattg | gaggatgagg | tgttggctgc | 15300 |
| catggtgtct | gtcattggga | ctgctacaac | ccacctgagc | cctgagtaag | tataatcatg | 15360 |
| gatgtggcct | gaaccaggg | agaaggatag | cattcttagg | aagaagcaac | aggtagctgc | 15420 |
| cttgtcagct | gtccttttac | ctatatgtaa | atgtggtgca | gttaatcgct | ttgtaagttt | 15480 |
| tgttgacaaa | acaaaaggaa | ggggctctta | gcaccatgga | ctatgagggt | gggaagccag | 15540 |
| ggccagtgg | tcttagccgc | agatgtgctt | aagaattacc | tgtagagcat | tttaaaatat | 15600 |
| accttgactt | cccagatggg | aacctgaatg | gaaatgatta | ctggcacata | tgtgccaaat | 15660 |
| taatatttgt | tcaatgcatg | aatgatcagg | gcatgtccca | tggacgtgg | gatcctaatt | 15720 |
| caaaccctag | gttgaaaagc | acgtctgtgg | aggagagggc | tgcttttagaa | tcctagctcc | 15780 |
| ttggtcatac | ctagtactct | gccccagggt | tagctgcccc | gagtgtgaca | cacattgtgc | 15840 |
| ccctcttctt | ggatggcaac | gtgtcctttc | tgcctgaaaa | cagcttcccc | agcagattcc | 15900 |
| agccattcca | ggtaacagtc | ttagaactta | cactcttcaa | gctgggtttt | ttttagggtc | 15960 |
| aatctggaat | gggtagagg | gcagacaagc | ttattgctgg | caggcttgat | cgggctctcc | 16020 |
| ttcctttata | ggatggctcc | tcagggcaga | ggcggctgat | tgcactgctt | atggcctttg | 16080 |
| tctgtccct | gcctcgaaat | gtaagtgagc | acatttgagg | agtactgtta | tttaaccttg | 16140 |
| acaaggtgac | tccgggctga | aatttgccac | aggctaagct | gatcttttac | ttccccacc | 16200 |
| agagaagtta | gttctcatcc | gtcccggctc | ctgctgccac | tatgtactgg | ttctcttgga | 16260 |
| gttcaagtgt | tctctgggtc | cattacatgg | ccagggtttt | tgtaggtgga | aatccctcag | 16320 |
| ctgaaccaac | tcatgcggga | gcttttgga | ctgagctgct | gccacagctg | ccccttttct | 16380 |
| tccaccgctg | ctgccaagt | ctttgcagga | ctcctcaaca | agcaccctgc | aggtactgag | 16440 |
| atcagactat | gtaaggagcc | tcccagaatc | aactaccat | gaaatcttat | agctcagtac | 16500 |
| tcattctctt | tttaaaagga | gcttgcta | aacattaaca | gggcttcaac | tgctcaagca | 16560 |
| ctgtcctggg | actgcccg | ggaaaagcgt | caagaccaca | gttgggcaga | gctttatagt | 16620 |
| acctaagaag | agaagggagc | acaaagagtc | tagttctgcc | gtcctactcc | ctacagtggg | 16680 |
| gctagtgtgg | ataattcttt | attggaagta | gatgaccctc | tcttttcaaa | tggcagcacc | 16740 |
| tctgtattat | gagaatacca | ggctcttatg | cagggtgtcca | atcattttgt | ccacaggcaa | 16800 |
| aaatgatatt | ttccctttct | aacagcttct | caggggagctc | tgcacttaaa | gtgatttgca | 16860 |
| tttcattgct | aaagggaata | tgtgtagcct | ttatgtcagc | atttctctct | tccttttttag | 16920 |
| ggcagcagct | ggatgaattc | ctacagctag | ctgtggacaa | agtggagggt | ggcctgggct | 16980 |
| ctggggcctg | tcgtagtcat | gccttcactc | ttcttctctg | ggtaaggagt | tggagtggag | 17040 |
| tctgggttagc | cagagaggca | attatgtctg | gttaaaataaa | atgtccctgt | ttgaccctaa | 17100 |
| accataaaca | tctatgtctc | agggttctcg | ggtttgagt | tcattcccca | attgctctct | 17160 |
| ctgtctccaa | ttacaggtaa | caaaggccct | agtgtcaga | taccatcctc | tcagctcctg | 17220 |
| ccttacagcc | cgggtacgtc | ctttctggag | acagaagaac | ccaggaccta | aacaaacttt | 17280 |
| ctgggtgctc | ctattcctcc | caaggacttc | catcctcccc | tgtgtgtttt | ttgttttctt | 17340 |

| | | | | | | |
|-------------|--------------|-------------|-------------|-------------|-------------|-------|
| ttcttttttc | tttttggaga | caggggtctta | ctctgtcacc | caggctggag | tacagtagtg | 17400 |
| caatcacagc | tcactccagc | ctcaacctcc | gtaggctcaa | gtgatcctcc | cacttcagcc | 17460 |
| tcgcaagtag | ctgggactac | agggggaccc | caccacaccc | aactaatgtt | tgtatttttt | 17520 |
| gtaagaactg | gggtttggcca | tgttgccag | actcctagac | tcaagcagtc | cacctgcctt | 17580 |
| ggcctcccaa | agtgtctagga | ttacaggcat | gagccaccac | acccggcccc | atccttatct | 17640 |
| ttggcactta | agattcttct | tccctgatgt | acctcaaagg | ctcttttttc | tccagctcat | 17700 |
| gggcctcctg | agtgaccag | aattaggtcc | agcagcagct | gatggcttct | ctctgtcat | 17760 |
| gtctgactgc | actgatgtgc | tgactcgtgc | tggccatgcc | gaagtgcgga | tcagtgtccg | 17820 |
| ccagcgggtc | ttcacagata | atgtgcctgc | tttgggtccag | ggcttccatg | ctgctcccca | 17880 |
| agggtgaggag | tctgaaagaa | ggtccccaca | tatacacatc | tctcctttgc | ttggccacat | 17940 |
| tccctaagat | aatttagggc | cgccttgctt | ctttagagct | atattgtggt | ctgtgcctag | 18000 |
| aagactaaac | ttctagattc | ttgtcccact | tcttccttcc | atgggcgtat | cttgcttatt | 18060 |
| ctgagcgtga | agggtccttt | caccggtttg | taggctgatg | tctcagcctc | accacagatt | 18120 |
| ggaattgatt | tctcaagcta | tatatctaag | tccaatttct | cccctaagcc | tttccatttt | 18180 |
| ttacagatgt | gaagccaaac | tacttgaagg | gtcttttctca | tgtacttaac | aggctgcccc | 18240 |
| agcctgtact | cttgccagag | ctgcccacgg | taagtcccac | aggcagagct | tctaagcaaa | 18300 |
| ggacaaaagt | attcttcccc | agatggggct | agaaaaggga | gggaacaaga | accaggatct | 18360 |
| tcagtgtgtg | gccatccccct | accttgccca | ttgccccctta | gcttctttcc | ttgctgctgg | 18420 |
| aggccctgtc | ctgcccgtac | tgtgtggtgc | agctctccac | cctcagctgc | cttcagcctc | 18480 |
| ttctactgga | agcaccacca | gtcatgagtc | ttcacgtgga | caccctcgtc | accaagtttc | 18540 |
| tgaacctcag | ctctagccct | tccatgggtgc | gttgagcccc | agcaactctt | aggcaccagc | 18600 |
| atctctccct | gggcatgctc | tcacctcctt | gtgggtgtgt | tccaggctgt | ccggtatcgc | 18660 |
| gcactgcagt | gcattgcattgc | tctcactcgc | ctgcccaccc | ctgtggttaag | tacctcaggt | 18720 |
| gtccttccct | ggcctgggaa | catctcaaga | gacacataag | tacctttttg | ccttagtcag | 18780 |
| gtgggcttgg | ccacctgggt | gtgtaattga | gatctgaatt | acaagggtaca | gatcctgtaa | 18840 |
| ttctgggccc | aaggattctt | ttccttgggc | ccagaaggta | acagaaaggc | catcctgcca | 18900 |
| cttaacatcc | cttggaatca | ctaaagatgt | tttgctttcc | tcagaatatt | agttgtacag | 18960 |
| aatcaaaaaa | gcggtacttt | cagttgcctt | ggatgagcaa | ggttgattat | atcctctgac | 19020 |
| tccacagctg | ctgccgtaca | aaccacaggt | gattcggggc | ttagccaaac | ccctggatga | 19080 |
| caagaagaga | ctggtgcgca | aggaagcagt | gtcagccaga | ggggagtggg | gagtttctag | 19140 |
| gtcgtgggga | gagatgggac | caagatgagc | ctcatcacta | atgctgccaa | ctttcttttt | 19200 |
| gcccacaggt | ttctgttggg | gagccctggc | agctgagccc | tcagtcctgg | cctagactgt | 19260 |
| tctgacaatc | taacctggga | ttactaactg | ttgagccatc | ttccccaag | caggggaaacc | 19320 |
| actggtctct | gactgccttt | cccacagaca | cagcacaaat | gctaggcctc | tgttgcatgg | 19380 |
| ctgtacaaaag | aacataagag | tccatatttc | tagtggtatt | gtaaaataag | tgtgtgtgag | 19440 |
| acacttgctg | ttgaagaaag | atctaggggtc | ctgggtctct | tgcatttata | tgtcagaaaa | 19500 |
| ggggcgatat | gctgctgagg | ggtgagtgc | tatgagtgtg | gccctgagga | ccagggtctg | 19560 |
| cagatgttgt | ctacctgctg | aagaataaag | atttcttttg | gtaatggggc | tgtcagatat | 19620 |
| ttccccacc | ccacatatgc | ctcatataac | cagaggcac | actggaataa | caatgacagg | 19680 |
| gattggccaa | aaatttttca | gggtaaccag | gacagtagca | catgcctgta | acccaacac | 19740 |
| ttcaggaggc | tgaggcaggc | ggatcacttg | aggctaggag | tttgagacta | gccctggcag | 19800 |
| tatagcaaga | acccatctct | acaaataatt | aaaaaaaaaa | aa | | 19842 |

<210> 12431
 <211> 345
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 12431 | | | | | | |
| gctacttggg | aggctgagac | acaagaatca | cttgagccgg | gcgcgggtggc | tcacgcctgt | 60 |
| aaagcttgta | atcccagcac | tttgggaggg | cgaggcggat | ggatcacaag | gtcatgacat | 120 |
| cgagacctcc | tggctaacac | agtgaacccc | cgtctctact | aaaaatacaa | aaaattagcc | 180 |
| gggcatgggt | gcgggcgcct | gtagttccag | ctacttggga | ggctgaggca | ggagaatggc | 240 |
| gtgaaccggg | gaggcggagc | ttgcagttag | ccgagatcgc | gccaccgcac | tctggcctgg | 300 |
| gcgaaagagc | gagattctgt | ctcaaaaaaa | aaaaaaaaaa | agaaa | | 345 |

<210> 12432
 <211> 346
 <212> DNA

<213> Homo sapiens

<400> 12432

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gctacttggg | aggctgagac | acaagaatca | cttgagccgg | gcgcggtggc | tcacgcctgt | 60 |
| aaagcttgta | atcccagcac | tttgggaggg | cgaggcggat | ggatcacaag | gtcatgacat | 120 |
| cgagacctcc | tggtctaacac | agtgaacccc | cgtctctact | aaaaatacaa | aaattagccg | 180 |
| ggtgtggttg | cgggcgccctg | tagtcccagc | tactcgggag | gctgaggcag | gagaatggcg | 240 |
| tgaaccggg | aggcggagct | tgcagtgagc | cgagatcaca | ccactgcact | ccagcctggg | 300 |
| tgatatagag | cgagactccg | tctcaaaaaa | aaaaaaaaaa | aaaaat | | 346 |

<210> 12433

<211> 330

<212> DNA

<213> Homo sapiens

<400> 12433

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| cctaaaataa | tttctttctt | tttttttttt | cttaactgtt | caaggtttat | tggggggtttt | 60 |
| agttggtata | acacttggat | agttggttgc | attgtttata | tgtagatgtt | tttacattat | 120 |
| atggtaatgt | acactactga | tatagttcac | aaaataagat | cctttggaag | aattatgcac | 180 |
| aagacatatg | atattagatt | tatacactgg | atcccaggat | gtgactgatt | gggaaaaaat | 240 |
| gttggtactg | gcatgttcag | tgaaggagcc | aggaagttaa | ataacacaca | gtaaacatcc | 300 |
| acctggctca | aggggcaaat | gcagcacgta | | | | 330 |

<210> 12434

<211> 989

<212> DNA

<213> Homo sapiens

<400> 12434

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|-----|
| aaaaattata | atcttagccg | ggtgctgtgg | cttacatctg | taatcccacc | actttggggag | 60 |
| aacaaggcag | gaggatccct | tgagcccagg | agtttgagac | caccctgggtc | aacacagaaa | 120 |
| ggcctcgtct | ctattttatta | ttattttttta | aataaaaaaa | taaagaatta | taatcttgat | 180 |
| gtgggttaatt | gcacctttgt | gtctattacc | tgtttctgtt | gcagggtgaac | ttaatagagc | 240 |
| attaggtctg | tcatactctt | gtggagaaac | agacatatat | caataattgt | tattcaagaa | 300 |
| gaaatacttt | ctacttttat | ggtaattttg | aaattataaa | agacaaaaaa | caggtaactc | 360 |
| tccttcacga | ttaagtctag | agggtgagaat | ttgggtcagg | tgagtggtgc | catgcctgta | 420 |
| atcccagtac | tttgggaggg | tgaggtgcga | ggattacttg | agagcaggag | ttgagaccag | 480 |
| cctaggcaac | atagttagag | cctgtctcta | caaaacgtct | aaaaaatttg | tcaggcattg | 540 |
| tggtgtgtct | ctgtagaggc | tgaggaggga | gggttgcttg | agcctaggaa | ttaaagactg | 600 |
| cagttagtaa | tgattgtgcc | actgcactcc | agcctgggtg | acagaggagg | actctctctc | 660 |
| tccctctctc | tctctttttt | tgagacaagg | tctcactctt | gttgcccagg | ctagattgca | 720 |
| atgccatgat | ctcccaggct | cagggtgatcc | ttctacctca | gcctcccaag | tagttgagac | 780 |
| tacagggaca | catcaccatg | cccaggttaat | ttttgcattt | ttttagagag | cagtgtcttg | 840 |
| ccatgttagc | cagggttagtc | tcaacctcct | gagctcaagc | gatgcacccg | cctcagcctc | 900 |
| ccaaagtgtc | ggattatagg | catgagttac | cgtgcctggc | ctgacccctt | ttggaaaaaa | 960 |
| aaaaaaaaaa | agaagaagaa | gaaaaagaa | | | | 989 |

<210> 12435

<211> 165

<212> DNA

<213> Homo sapiens

<400> 12435

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttttgttttt | ttgttttttg | tttttttttt | tttgagatgg | agtttagctc | ttattgcca | 60 |
| ggctggagtg | caatggcacg | atctcagctc | accacaacct | ccgcctcccg | ggttcaagca | 120 |
| attctcctgc | ctcagcctcc | caagtagctg | ggattacagg | catgc | | 165 |

<210> 12436
<211> 7540
<212> DNA
<213> Homo sapiens

<400> 12436

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ggcggggcgt | ggaccagccg | cgccgagcgg | ggcctctccg | ggccgcgtct | gtgggggtcga | 60 |
| gactgcgcgg | ccgttgggcg | tgcagcggcg | ccagtcggcg | gacgaggggc | ccccgggagg | 120 |
| taggtgcggg | cagagagagg | acctggggcg | gcggggcggg | gcggcgctga | gcggccgggg | 180 |
| gtctgttgga | ctctacccgc | acgttagccg | aggcccgtct | ccggtgcccg | gtagcgcgag | 240 |
| gcacacagaa | ggcgtcaat | aagtgtgat | tgaatgaatg | agcccgtgcc | ctcctcatcc | 300 |
| cggcccgcgc | agcctccggt | ttgagagcgt | gcaggccacc | ctcaccctca | ctgtacagac | 360 |
| tgaggatatcc | agatgccgga | caggctcttta | ttggggcgct | actgtgtgcc | tgggtggctc | 420 |
| tgcgctgggt | gcagctggcc | ctgagcaaga | cagacagcct | ggccccgccc | agctcaccgc | 480 |
| cggggggggag | ggacgacttt | aaatgactta | aaataatgta | attcctagct | ccctctgtag | 540 |
| cacaaaataa | aagaaaataa | caccagggaa | gggggcgggg | agagctctga | gtggagacat | 600 |
| ctgagcagtg | acccgaagac | ctgaatgcag | tgaggtagcg | gggccatgag | gcgcttgggg | 660 |
| ctgatgggtg | gggagaaaac | ccagttgggg | aaaactcaag | gacaggggag | gagctgagat | 720 |
| tcctcctaag | aacggtgaca | ttttggggtc | cagggtgaaa | ccgacttcac | tttgggcccat | 780 |
| tgcatacagg | aaaatgcggc | ccttatcagt | ggccacacgc | ttccccctcg | ccatgtgttc | 840 |
| agccagcggt | ttttgagtat | ctgttctgca | gcaggccttc | cggcggggtac | agggatatgg | 900 |
| tttagggcag | gagtcagcca | ggggcagaga | gggaggccct | tttttttttt | tttttttttt | 960 |
| ttttgagacg | gagtcttgct | ctgcagccca | ggctggagta | caatggcgcg | atctcggtct | 1020 |
| actgcaagct | ccacctcctg | ggttgaagca | attctcctgc | ctcagcctcc | cgagtaactg | 1080 |
| ggattacagg | cacgtaccac | catgcccagc | taattttttt | tttttttgag | acagagtctt | 1140 |
| actctgtcac | ccaggctgga | gtgcaatggc | ttgatcttgg | ctcactgcaa | cctccacctc | 1200 |
| ctgggttcaa | gtgattctcc | tgcctcagcc | tcccaagtag | ctgggattac | aggtgcccac | 1260 |
| taccacaccc | agctaatttt | tgtattttta | gtagagacag | tgtttcactg | tgttggccag | 1320 |
| gctgggtctg | aactctcgac | ctcaggtgct | ggctctgaac | tctcgaacct | aggtgatctg | 1380 |
| cccacctcag | cctcccaaaag | tgtcagagatt | acaggtgtga | gccaccactc | ccaaccgagg | 1440 |
| gaggcccttt | tgagggggtcc | tggatgcaga | gaagcaagaa | agaagaagga | ggcctcgctg | 1500 |
| gaaggtcagg | ggaaagagag | cagtgttcca | ggtggagaga | ggagaaccca | tgcagaggtc | 1560 |
| ctgaggcacg | agcaagcttg | gcacagaaag | gaccagttag | ggccgaggcg | aggcaggagc | 1620 |
| ttgtcatgca | gagcttcagc | ctcagggtac | agagtttaga | ctttattttc | gggcatgggg | 1680 |
| aagccatgga | ccaccaccat | ccaatagcat | gttctgcagt | gatgagagtg | ttccctttgc | 1740 |
| tgtcaaatac | ggtaaccaca | gaagtcaagt | aggcttgtgt | gactactgag | cgcttgaaat | 1800 |
| atggccaggg | agactgagga | gcggaatttt | gtattttatt | tagttttttt | tttttttttt | 1860 |
| ttttgagatg | gagttttgct | cttgttgccc | agcctggagt | gcggtgggtg | catcttggct | 1920 |
| cactgcaacc | tctgcctcct | gggttcaagc | gattctcttg | cctcagcctc | cagagttagct | 1980 |
| gggattacag | gtgcctgcca | ccacggcccg | ctaatttttg | tatttttggg | agagacggcg | 2040 |
| tttcaccatg | ttgtccaggc | tgggtctcgaa | ttcctgacct | caggtgatcc | accacacctg | 2100 |
| gcctcccaaa | gttctgggat | tgcaggtgtg | agccactaca | cccagcctgg | atttttttta | 2160 |
| attttgatga | acttttttct | ttttttgaga | cagtgtatta | gtcagggttc | tctagaggga | 2220 |
| cagaactaat | ggaatagtta | tatatataaa | gggaagttta | ttaagtatta | attgcacacg | 2280 |
| attacagggt | ctcacaatac | attgtctgca | gattgaggag | caaagagagc | cagtccgagt | 2340 |
| tccaaaactg | aagaactggc | cagggtcagt | ggctcacgcc | tataatccta | gcactttggg | 2400 |
| aggccgaggc | aggcgatca | cgaggtcagc | agttcagagc | cagcctggcc | aacatgatga | 2460 |
| aacctcgtct | ctactacaaa | tacaaaaaaa | attagctggg | agtgggtggc | cgtgtctgta | 2520 |
| atcccagcta | ctaggcagga | gaattgcttg | aatccaggaa | gcggagggtg | cagtgagcgg | 2580 |
| agattgcacc | attgcactcc | agcctggcaa | cagagcgaga | ctctgtctaa | aaaaaaaaaa | 2640 |
| agaaaaaaga | aagaaagcta | atgcagtgcc | cctgatgttc | acagttgctg | gactgagaca | 2700 |
| tgagcctcca | actgtgtggg | tgggctcggt | agcacatcgt | gggacttggg | tgtgcgcca | 2760 |
| cagatggttt | ggccctgcag | tgaccagagc | agcccaagcc | gccaccatgg | tgaatttgct | 2820 |
| agtggccaaa | atcctgtgca | tgggtggcgt | gttcttcttc | atgctgctcg | gctccctgct | 2880 |
| ccccgtgaag | atcatcgaga | cagattttga | gaaggcccat | cgctcgaaaa | agatcctctc | 2940 |
| tctctgcaac | acctttggag | gaggggtggt | tctggccacg | tgcttcaacg | ctctgtgccc | 3000 |
| cgctgtgagg | gaaaaggtaa | gggctccctg | ggcactagca | gcagcccttg | gcaccttatg | 3060 |
| gccaagggac | tctgatgcat | tttcaacact | gatgccaaagt | tcagtgaagg | ccttgatgct | 3120 |
| gtaagggtga | cggaaagtag | gaagtgaatt | tgtgtgtgta | ttgtgaactg | gttactttct | 3180 |
| gtctctgtgc | tctaccggcc | aaacaagggg | tttgaccag | acctgggatt | cccaacaggt | 3240 |
| ggacttgtcg | gttgtcacct | gataatcaga | ccagactacc | cacctaggta | gggcacactc | 3300 |

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|------|
| tgtcctgaag | ctggaaagca | tggcctctct | tcggttccta | tatcagtcag | ctactgttgc | 3360 |
| gtaacaaatt | atagcaaact | gagcacctta | ggactacaga | cgtttatcat | ctcacagttt | 3420 |
| ctgtgagtc | gggtctctgg | cactgcttca | ggagctcaca | aggcagcagt | cacagtgtct | 3480 |
| cctgggctgt | ggctctcatc | caacgttcaa | ccggggatgg | gtcggcctct | aagctcatgt | 3540 |
| ggttgtaagc | caggttcagt | tcctcattgg | ttgtcagacc | gaaggtgtct | gtttgtcagt | 3600 |
| gtctgttggc | tggggcagcc | ctcagagcct | ggccacgtgg | acctccccag | catgatcagt | 3660 |
| tccttcatca | gcaaattggag | aagatggcca | tgactctgtg | taagacagag | ggcacagtcc | 3720 |
| catgtcatgc | agaggtgaca | gggtatccct | tcctctctgc | cccagtgtcc | tgctggttag | 3780 |
| aagcaagttc | aagtccttcc | catactcaag | tggccaggac | ctcacagggt | atggctgtca | 3840 |
| agaggcaggg | gcttctgggg | ccatcttggg | gtctgtccac | cccaactcct | gacagcatca | 3900 |
| tcctctgctg | acctgttctt | tgagctcccc | catatcagca | gcccagagtg | tgggtcccc | 3960 |
| gtcaggccac | agtgtgacca | gccctggcca | tgcttgtctg | gtgaccttgg | gtgagtggct | 4020 |
| tcctctctct | gggccagtgc | cagatgtgac | attgaatttg | tgttggttac | atacttgggt | 4080 |
| gagatatgag | gacccctgtt | tcctcctccc | aacgaaagca | tgggaagcct | aagcttatcc | 4140 |
| cccaaccctt | ggccctgtct | ttctctgtgc | ctagtgtcca | gaaaggagga | gaagggtgtg | 4200 |
| tgtctgggat | taaattcatct | gagcctgtta | gtgtggcaga | gtagagtctc | aggggtggctc | 4260 |
| cctgagcttc | cagcccttgc | tccgcacgcc | ccatgtctct | ccctccccct | gagtgtgggt | 4320 |
| agggtctggg | ctgccgtgcg | tgtcactcct | gccattatgt | cagaatccca | gcagagggga | 4380 |
| tgttgacagt | gtgatgaccg | cccagatcgt | gttagcgctg | agttcatcaa | aaggaggggg | 4440 |
| gtgggcctgg | cctaattcagg | tgagccactc | acctcctctg | tggccttggg | gaagcaaaaa | 4500 |
| gccagggtgt | gccaggagaa | gggcattgaa | cgaggaccgc | agggcagcct | ctcggtgcca | 4560 |
| agagccatcc | ccgccaacag | ccagccagga | cacggggcct | cagtcacacg | ccaccaggag | 4620 |
| gtggactctt | ccgacctcca | gtgaccttgg | aagaggacct | tgggtgtcag | tgagatctca | 4680 |
| gccctgatga | cacctgtcga | gacctggagc | gtagggccca | gctagcccg | acctggattt | 4740 |
| ccaccgttca | gagccgagac | accgcattcc | tgctgttccg | cgtggctgag | tctgcattcg | 4800 |
| ttcgttacgc | ggtgtgtgaa | gactgacatc | tgactgcga | ggatggagat | cttgggtcatc | 4860 |
| tctgacatct | cctgcatcgc | agaggccact | gccagccccc | cttttcccc | atgggtcatgg | 4920 |
| tgtcaccccc | gtcacctctt | gactgcaggc | ctggggcgact | gcggggagct | tgctcttccc | 4980 |
| tccccctcat | cacagtggcc | ttctcatggc | acccaaacct | ttcccggcgt | tctcctgtcc | 5040 |
| tccggctggg | caggcggagt | aggtccctac | tcccagagcc | ccagcctcac | ccactgcagg | 5100 |
| gccaggctct | cagtcacccc | tggaaaatgg | tgccctgggt | acagctcccc | tgcatctgcc | 5160 |
| tcctctctcc | tgatcaacgt | ctgtctcttg | ggagtagcta | gagttcctca | tgagcttgtc | 5220 |
| ctcaagcgag | gcatgcatga | ggcctccagc | cggtgggtcag | tgaggaggtt | aagtggcttc | 5280 |
| tccgtggaaa | cacagccttc | tgctgcagca | gaggctcacc | cagcgtgaac | tgccccagg | 5340 |
| gaacactggg | cgatgcctgg | ggacattgtg | gttgtcacga | tgggggggtg | tcctggcctg | 5400 |
| gagtgggtgg | aggccagaga | cactgctcag | cagcaccctg | cagtgccccg | gacggccccg | 5460 |
| tcccagagaa | caatccagcc | ccgaatgtca | gcaccttccc | cctacccgag | ttgtgaaaa | 5520 |
| aaaaaatgtt | tccagacatt | gccagggtgt | cacacgggca | gaatcgccct | ggttgagaac | 5580 |
| cactgtgtgc | gcgtgcttgt | gtgtgcacct | gcgtgtgcgc | gtgtgtgtgc | gtgcgtgtgt | 5640 |
| gcacatatgc | gtgtgtgtgt | gtgtgtgtgc | acgtgcgcag | gttgtaatga | agtctccgct | 5700 |
| gggaaggaag | cagggaagca | ggcattgttg | agtgtcgatt | gtgttgtgat | tttctccac | 5760 |
| tttgggtctg | aggtctctct | ggagggtggc | tgtgaactct | ggcctgccc | tgacgaggct | 5820 |
| ccaggggagt | gttgtgggag | tttacagcct | gcctttcatg | agacatttca | tcctggcgca | 5880 |
| tagcctaatt | cctgcgtgtc | cgccccgtga | gcagctgtcc | ctcccatagg | agtgtgtacc | 5940 |
| tcttgacag | gccctgcggc | tcccgtctga | cccacgtcta | gtttctcccc | accaaagtct | 6000 |
| cccctcgcta | ggagagccct | gaccaggagg | agagtcgggc | ccaggcatgt | cggtcagggg | 6060 |
| agcagagagg | aggccccgcg | gcagaacacg | caaggccagt | gcagctcttt | atgtgtttat | 6120 |
| tttgagccgg | agtcctcctc | tgctgcccag | gctggagtg | agtggcacga | tctcgtctca | 6180 |
| ctgcaacctc | tgctcctctg | gttcaaagca | ttctcctgcc | tcagcctcct | gagtagctgg | 6240 |
| gattacaggt | gctcgccacc | atgccagct | aatttttcta | tttttagtag | aaacatgttt | 6300 |
| ccccatattg | gccaggctgg | tctcgaaact | ctgggctcaa | gcaatccgcc | agcctcagtc | 6360 |
| tcccaaaatg | ctgggggtcac | aggcatgagc | caccgcgctt | ggctgggtgg | ggtgggtgta | 6420 |
| attcatcaca | ggcgagccct | tcctctccca | cttggtttta | cctctgtgtg | aatcggggat | 6480 |
| ttctggactt | tgctttgaac | ggtgacatct | ggccagccct | gtcgccgcca | cccctgagcg | 6540 |
| tgggtctctc | tctctctctc | gggtgtcccc | ggctgcagct | ccagaaggtc | ctgagcctcg | 6600 |
| gccacattag | caccgactac | ccgctggccg | aaaccatcct | cctgctgggc | ttcttcatga | 6660 |
| ccgtcttctt | ggagcagctg | atcctgacct | tccgcaagga | gaagccgtcc | ttcatcgacc | 6720 |
| tggagacctt | caacgcccgga | tcggacgtgg | gcagcgactc | ggagtatgag | agccccctca | 6780 |
| tggggggcgc | gcggggccac | gcgctgtacg | tggagcccca | cggccacggc | cccagcctga | 6840 |
| gcgtgcaggg | cctctcgcgc | gccagccccg | tgcgcctgct | cagcctggcc | ttcgcgctgt | 6900 |
| cggcccactc | ggtcttttag | ggcctggccc | tgggcctgca | ggaggagggg | gagaaagtgg | 6960 |

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|------|
| tgagcctgtt | cgtggggggt | gccgtccacg | agacactggt | ggccgtggcc | ctgggcatca | 7020 |
| gcatggcccc | gagtgccatg | cccctgcggg | acgcggccaa | gctggcggtc | accgtaagcg | 7080 |
| ccatgatccc | cctgggcatc | ggcctggggc | tgggcattga | gagcgcccag | ggcgtgccgg | 7140 |
| gcagcgtggc | gtccgtgctg | ctgcagggcc | tggcgggcgg | caccttcctc | ttcatcacct | 7200 |
| tcctggagat | cctggccaag | gagctggagg | agaagagtga | ccgtctgctc | aaggctctct | 7260 |
| tcctgggtgct | gggctacacc | gtcctggccg | ggatgggtctt | cctcaagtgg | tgagcggcct | 7320 |
| cgccattgtc | cctgccgccg | gagcccgcgg | ggagccccgg | gccggacaca | ggccgcgtcc | 7380 |
| cccggccgcg | cgtcccccga | gagcgagcac | tgtggccctg | ggccaccacc | tgtgcacaag | 7440 |
| gggcctcccc | ggaccaggct | gtgcccccca | tcctacaccc | tgagcctcag | agcactgcta | 7500 |
| cttttttaaaa | tactttcttc | tcttaaaagt | ctttacaaaa | | | 7540 |

<210> 12437
 <211> 181
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|-----|
| <400> 12437 | | | | | | |
| aattagccgg | gcgtgggtggc | aggcgccctgt | agtcccagct | acttgggagg | ctgaggcagg | 60 |
| agaatggcgt | gaaccagggg | ggcggagctt | gcagtgaagt | gagatcgcg | caactgcactc | 120 |
| cagcctgggc | gacagggcaa | gactccgtct | caaaaaaaaa | aaaaaaaaaa | aaaaaattgt | 180 |
| g | | | | | | 181 |

<210> 12438
 <211> 129
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 12438 | | | | | | |
| caagctactc | aggaggctga | ggcaggagaa | tggcatgaac | ccgggagggtg | gagcttgag | 60 |
| tgagctgaga | tcgcgccact | gcactccagc | ctgggtgaca | cagtgaagact | ccgtctcaaa | 120 |
| aaaaagaga | | | | | | 129 |

<210> 12439
 <211> 170
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12439 | | | | | | |
| tcggggcgct | gtagtcccag | ctacttggga | ggctgaggca | ggagaatggc | gtgaacccgg | 60 |
| gagggcgagc | ttgcagtga | ccgagatccc | gccactgcac | tccagcctgg | gcgacagagc | 120 |
| gagactccgt | ctcacaaaat | aaaaaaaaaa | taaaataaaa | taaaataaaa | | 170 |

<210> 12440
 <211> 109
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 12440 | | | | | | |
| ggcgtgaacc | caggaggcgg | agcttgagct | gagatgagat | cgcgccactg | caactccagcc | 60 |
| tgggcgacag | agcaagactc | catctcaaaa | aaaaaaaaaa | aaaaaggac | | 109 |

<210> 12441
 <211> 184
 <212> DNA
 <213> Homo sapiens

<400> 12441
 cgtgggtggcg ggcgcctgta gtcccagcta ctcgggagggc tgaggcagga gaatggcgctg 60
 aacctggggag gcggagcttg cagtgaagccg agatcgcgcc actgcactcc agcctggggcg 120
 acagagcgag agtccgtctc aaaaaaaaaa aaaaaaaaga aaagaaaaaa gaacaaacaa 180
 cagc 184

<210> 12442
 <211> 147
 <212> DNA
 <213> Homo sapiens

<400> 12442
 ggtcccagct actcgggagg cttaggcagg agaattggcgt gaaccagga ggtggagctt 60
 gcagtgaagg gagatcgcg cactgcactc cagcctggggc gacagagcga gactccatct 120
 caaaaaaaaa aaaaaaaaaa aattgtg 147

<210> 12443
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 12443
 aaaattagcc aggcgtgatg gtgggtgcct gtagtcccag ctacttggga ggctgaggca 60
 ggagaatggc gtgaaccag gaggtggagc ttgcagtga ctgagatcg gccactgcac 120
 tccagcctgg gcgacagagt gagactccat ctcaaaaaaa aaaaaaaga 169

<210> 12444
 <211> 131
 <212> DNA
 <213> Homo sapiens

<400> 12444
 ggaggctgag gcaggagaat ggcgtgaacc caggaggcgg agcttgagct gagctgagat 60
 tgcgccactg cactccagcc tgggcaacag agcgagactc cgtctgaaaa aaaaaaaaaac 120
 aaaaactggg g 131

<210> 12445
 <211> 143
 <212> DNA
 <213> Homo sapiens

<400> 12445
 gtagtcccag ctactgggga ggctgaggca ggagaatggc gtgaacctgg gaggcggagc 60
 ttgcagtga ccgagatcg gccactgcac tccagcctgg gcgacagagc gagactccgt 120
 ctcaaaaaaa aaaaaaagaa atg 143

<210> 12446
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 12446
 gccgggcgtg gtagcggggc cctgtagtcc cagctactcg ggaggctgag gcaggagaat 60
 ggcgtgaacc cgggagggcg agcttgagct gagccgagat ctgccactg cactccagcc 120
 tgggcgacag agcgagactc cgtctcaaaa aaaaaaaaaa aaaaagactg 170

<210> 12447
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 12447
 aaaaaattag ccgggtgtgg tggcgggcgc ctgtagtccc agctgctggg gaggctgagg 60
 caggagaatg gcgtgaaccc gggaggcgga gcttgcaagt agccgagatc ccgccactgc 120
 actccagcct gggtgacaga gcgagactcc atctcaaaaa aaaaaaaaaa a 171

<210> 12448
 <211> 141
 <212> DNA
 <213> Homo sapiens

<400> 12448
 cagctactcg ggaggctgag gcaggagaat ggcgtgaacc tgggaggcag agcttgcaagt 60
 gagccgagac agcgccactg cactccagcc tgggtgaaag agcgagactc cgtctcaaaa 120
 aaaaaaaaaa aaaaaaaatt t 141

<210> 12449
 <211> 125
 <212> DNA
 <213> Homo sapiens

<400> 12449
 ctgaggcagg agaatggcgt gaacccggga ggcggagctt gcagtgagcc gagatggcgc 60
 cactgcagtc cagcctgggc gatagagcga gactctgtct caaaaaaaaa aaaaaaaaaa 120
 aaatt 125

<210> 12450
 <211> 175
 <212> DNA
 <213> Homo sapiens

<400> 12450
 cgggcgtagt ggcggggcgcc tgtagtccca gctacttggg aggctgaggc aggagaatgg 60
 cgtgaacccg ggaggcgagg cttgcagtga gccgagattg cgccactgca ctccagcctg 120
 ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa atcac 175

<210> 12451
 <211> 154
 <212> DNA
 <213> Homo sapiens

<400> 12451
 tggtagtccc agctactcgg taggctgagg caggagaatg gcttgaaccc ggtaggcgga 60
 gcttgcaagt agccgagatc acgccactgc actccagcct gggccacaga gcgagactcc 120
 gtctcaaaaa aaaaaaaaaa aaagaaagaa attg 154

<210> 12452
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 12452
 cgggtgtggt ggagggcacc tgtagtccca gctactcggg aggctgaggc aggagaatgg 60
 cgtgaaccca ggagggcggag cttgcagtga gctgagatcg tgccactaca ctccagcctg 120
 ggcaacagag cgaaactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa agtcca 176

<210> 12453
 <211> 150
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (21)
 <223> n equals a,t,g, or c

<400> 12453
 ctgtagtccc agctattcgg naggctgggg caggagaatg gcgtgaaccc gggagggcgga 60
 gcttgacagt agccgagatc gcgccactgc actctagcct gggcgacaga gcgagactcc 120
 gtctcaaaaa aaaaaaaaaa aaaacaactt 150

<210> 12454
 <211> 162
 <212> DNA
 <213> Homo sapiens

<400> 12454
 agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggagggcgga gcttgacagt 60
 agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagaaca aa 162

<210> 12455
 <211> 129
 <212> DNA
 <213> Homo sapiens

<400> 12455
 gaatggcgta accgggagggc ggagcttgca gtgagccgag atcgcgccac tgcaactccag 60
 cctggggcgac agagcgagac tccgtctcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaacaaaga 129

<210> 12456
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 12456
 aaaaattagc cgggcgtggt ggcggggcgcc tgtagtccca gctactcgag aggctgaggc 60
 aggagaatgg cgtgaacccg ggagggcggag cttgcagtga gccgagatcg cgccactgca 120
 ctccagcctg ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaga 180
 tcagaaaaaa ata 193

<210> 12457
 <211> 177
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|------|
| cagaaagaaa | ggcacaagta | tgcttgactc | aatctggatc | tccaaatccc | tgcaggctgg | 2340 |
| tttgagggtc | ctttctgaag | gcggggaggt | ggttgaaatt | aacttttgag | gcccttttgg | 2400 |
| gaaaccagag | ttcttaagtt | tatccaacta | ttccatggga | gttccaactc | ctctgagatg | 2460 |
| ataagtcttc | cctccaccca | aaaatgtatc | tgagccctca | gccccagcaa | atagatcact | 2520 |
| catgtgtatt | ctttttctct | cttggaccta | ggctacctcc | gggatgtgac | aggcaactac | 2580 |
| acggcttctt | ttgtggtggc | tggggccttc | cttctttcag | ggagtggcat | tctcctcacc | 2640 |
| ctgccccact | tcttctgctt | ctcaactact | acctccgggc | cccaggacct | tgtaacagaa | 2700 |
| gcactagata | ctaaagtctc | cctacccaag | gaggggctgg | aagaggactg | aactccacag | 2760 |
| agtcaggccc | agaaagccaa | agcttgacag | ctccagggtct | tctcttgcca | cgtcttggtc | 2820 |
| tccacagaac | cacagtgcct | taagattctt | gatctgcctc | cccctagagc | aggcctgggg | 2880 |
| ctcctgcaat | gtgtgtgcca | accctttgta | ttttgttgag | ga | | 2922 |

<210> 12460
 <211> 39
 <212> DNA
 <213> Homo sapiens

<400> 12460
 gactctgtct caaacaacaaa aaaaaaaaaa aaaaaggaa 39

<210> 12461
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 12461
 cccagctact cgaggaggctg aggcaggaga atggcggtgaa cccgggaggc ggagcttgca 60
 gtgagccgag atcgcgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa 120
 aaaaaaaaaa aaaaaaaaga aagcagtggg gcc 153

<210> 12462
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 12462
 ggctgaggca ggaaaatggc atgaacccgg gaggcggagc ttgcagtgag ctgagatcgc 60
 agcactgcac tccagcctgg gcaacagagc gagactccat ctcaaaaaaa aaaaaaaaaa 120
 a 121

<210> 12463
 <211> 2910
 <212> DNA
 <213> Homo sapiens

<400> 12463
 ctcgggaggc tgaggcagga gaatcgcttg aacccgggag gcggagggttg cagtgagcca 60
 agatcgacc actgcactcc agcctgggag acagagcaag attctgtctc aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaagat gaaaccaagt atacaagccc agaagcccag ggctaattggg 180
 actggagtgc aaaaggaaga attactataa aatggtgcta ggggccaggc acggtggctc 240
 acgcctgtaa tcccagcact ttgggaggcc gaggcgggag gatcacgagg tcaggagatc 300
 aagaccatcc tggctaacac ggtgaaatca cgtctctact aaaaacacaa aaaattagct 360
 gggcgtggtg gcaggtgact gtagtcccag ctactcggga ggctgaggca ggagaatggt 420
 gtgaacccgg gaagcagagc ttgcagtgag ccgagattgc accactgcac tccagcctgg 480
 gcgacagagc gagactccgt ctcaaaaaaa aaaagaaaaa aaaaggtgct aggtactgtg 540
 actgtgaaat cgatatcatt attggattta cagctgggga aaagctttaa agcttataca 600
 acttggcaaa tgaaggtcac acagctagaa atggttagag ccagggtctaa ctccaaagtt 660

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|------|
| ctgtgctagt | taccttacaa | actttgtctc | taatcttcca | caatcccaaa | aagtgtatta | 720 |
| ttacattttg | cagttgagaa | ggttgaggct | gggggtgtta | agtaaaacac | acaaggttac | 780 |
| acagctatga | agtatccaag | ccaagattgt | atcccaggtc | tgtgggactc | cgaagcaagt | 840 |
| gctacattct | gctgctgggc | aatgcgggga | ttactgtgtg | ccttgagctc | cctaagagtt | 900 |
| ctcaacacca | cttcttcctt | tttgacaggc | tctggctggg | ctttgacctt | cgctccgacc | 960 |
| ctggcctgcc | tgtcctgtta | tttctctcgc | cgacgatccc | tggccaccgg | gctggcactg | 1020 |
| acaggcggtg | gcctctcctc | cttcacattt | gccccctttt | tccagtggct | gctcagccac | 1080 |
| tacgcctgga | gggggtccct | gctgctgggt | tctgccctct | ccctccacct | agtggcctgt | 1140 |
| ggtgctctcc | tccgccacc | ctccctggct | gaggaccctg | ctgtgggtgg | tcccagggcc | 1200 |
| caactcacct | ctctcctcca | tcatggcccc | ttcctccgtt | acactgttgc | cctcaccctg | 1260 |
| atcaacactg | gctacttcat | tccctacctc | cacctgggtg | cccatctcca | ggacctggat | 1320 |
| tgggaccac | tacctgctgc | cttcctactc | tcagttgttg | ctatttctga | cctcgtgggg | 1380 |
| cgtgtgggtct | ccggatggct | gggagatgca | gtcccagggc | ctgtgacacg | actcctgatg | 1440 |
| ctctggacca | ccttgactgg | ggtgtcacta | gccctgttcc | ctgtagctca | ggctcccaca | 1500 |
| gccctgggtg | ctctggctgt | ggcctacggc | ttcacatcag | gggctctggc | cccactggcc | 1560 |
| ttctccgtgc | tgcctgaact | aatagggact | agaaggattt | actgtggcct | gggactgttg | 1620 |
| cagatgatag | agagcatcgg | ggggctgctg | gggcctcctc | tctcaggtaa | gtggaatggg | 1680 |
| gttcccaggg | ggtgagggct | gccatgttgc | acaactaggg | gagggtacta | ttctcattac | 1740 |
| agtgtatgtg | aatattgccc | tctgggtgtg | tacagtacac | agcctgcgtg | gccaaccata | 1800 |
| gcacccctga | aatgggtcca | tggggcaaa | aacttggggc | tgggaaagtc | tgagtggaaa | 1860 |
| gacaaaaaga | agctaagtg | aacccttggc | agggtgccta | cggcttgggt | ttgcagagga | 1920 |
| cctggcagaa | cctggccaga | cacagacgta | gcattccagt | gtgcaccctt | tcctttggcc | 1980 |
| tactgggccc | caaaccaggt | atctgaggca | cctggtcaaa | gttctgctgg | ctcagggtgc | 2040 |
| cagaactttc | agacctttat | ctcctcttac | ccattaactg | aagctttaga | aaggccacag | 2100 |
| ttggtgggcg | cctgtagtcc | cagctactca | ggaggctgag | gcaggagaa | ggcatgaacc | 2160 |
| cgggagggcg | agcttgacgt | gagctgagat | cgcgccactg | cacttcagcc | tgggcgacag | 2220 |
| agcgagactc | cgtctcaaaa | aaaaaaaaaa | aagaaaggcc | acagttgcc | gaaagaaagg | 2280 |
| cacaagtatg | cctgactcaa | tctggatctc | caaatccctg | caggctggtt | tggaggctcct | 2340 |
| ttctgaaggc | ggggaggttg | ttgaaattaa | cttttgaggc | ccttttggga | aaccagagtt | 2400 |
| cttaagttta | tccaactatt | ccatgggagt | tccaactcct | ctgagatgat | aagtcttccc | 2460 |
| tccacccaaa | aatgtatctg | agccctcagc | cccagcaaat | agatcactca | tgtgtattct | 2520 |
| ttttctctct | tggacctagg | ctacctccgg | gatgtgacag | gcaactacac | ggcttctttt | 2580 |
| gtggtggctg | gggccttctc | tctttcaggg | agtggcattc | tcctcaccct | gccccacttc | 2640 |
| ttctgcttct | caactactac | ctccgggccc | caggaccttg | taacagaagc | actagatact | 2700 |
| aaagttcccc | tacccaagga | ggggctggaa | gaggactgaa | ctccacagag | tcaggcccag | 2760 |
| aaagccaaag | cttgacagct | ccaggctctt | tcttgccacg | tcttggtctc | cacagaacca | 2820 |
| cagtgcctta | agattcttga | tctgcctccc | cctagagcag | gcctggggct | cctgcaatgt | 2880 |
| gtgtgccaac | cctttgtatt | ttggttagga | | | | 2910 |

<210> 12464
 <211> 158
 <212> DNA
 <213> Homo sapiens

<400> 12464
 gcctgtagtc ccagctactc gggaggctga ggcaggagaa tggcatgaac ccaggaggcg 60
 gagcttgcag tgagcagaga tcgcgccact gcactccagc ctgggcaaca gagcgagact 120
 ctgtctcaga aaaaaaaga aaaaagaaaa aagaaaat 158

<210> 12465
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 12465
 cgggcggtgg agcgggccc tgtagtccca gctactcggg aggctgaggc aggagaatgg 60
 cgtgaaccgc ggaggcggag cttgcagtga gccgagatcg cgccactgca ctccagcctg 120
 ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaattgac 180
 tcctaatacaa aaa 193

09050083 091204

<210> 12466
<211> 183
<212> DNA
<213> Homo sapiens

<400> 12466
gaaaaattta gccgggctg gtggcgggcg catgtagtcc cggctactcg ggaggctgag 60
gcaggagaat ggcgtgaacc cgggaggcgg agcttgcagt gagccgagat ggcgccactg 120
cactccagcc tgggcgacag agcgagactc cgtctcaaaa aaaaaaaaaa aaataataat 180
gaa 183

<210> 12467
<211> 136
<212> DNA
<213> Homo sapiens

<400> 12467
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga ttgtgccact 60
gcactccagc ctgggcgaca gagtgcagact ccgtctcaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaa 136

<210> 12468
<211> 153
<212> DNA
<213> Homo sapiens

<400> 12468
gggcgtggtg gcggggcgct gtagtcccag ctactcggga ggctgaggca ggagaatggc 60
gtgaacccgg gagggcgagc ttgcagtgcag ctgagatcac cccactgcac tccagcctgg 120
gcgacagagt gagactctgt ctcaaaaaaa aaa 153

<210> 12469
<211> 150
<212> DNA
<213> Homo sapiens

<400> 12469
ggcgctgta gtcccagcta ctccggaggc tgaggcagga gaatggcgtg aacccgggag 60
gcggagcttg cagtgcagct agatcgcgcc actgcactcc agcctgggag acagagcgag 120
actctgtctc aaaaaaaaaa aagaattggc 150

<210> 12470
<211> 142
<212> DNA
<213> Homo sapiens

<400> 12470
cccagctact caggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca 60
gtgagccgag atcccgccac tgactccag cctgggagac agagcgagac tccgtctcaa 120
aaaaaaaaaa aaaaaaatg ga 142

<210> 12471
<211> 181
<212> DNA

<213> Homo sapiens

<400> 12471

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| caaaagttag | ccgggtag | tgccggg | ctgtgtccc | agctactcg | gaggctgagg | 60 |
| caggagaatg | gcgtgaacc | gggaggcgga | gcttgagtg | agccgagatc | gcgccactgc | 120 |
| actccagcct | gggtgacaga | gcgagactcc | gtctcaaaaa | aaaaaaaaaa | aaaaaaagat | 180 |
| t | | | | | | 181 |

<210> 12472

<211> 123

<212> DNA

<213> Homo sapiens

<400> 12472

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aggcaggaga | atggcgtgaa | cccgggaggc | ggagcttgca | gtgagccgag | atcccgccac | 60 |
| tgcactccag | cctgggagac | agagcgagct | ccgtctcaaa | aaaaaaaaaa | aaaaatgctg | 120 |
| tta | | | | | | 123 |

<210> 12473

<211> 176

<212> DNA

<213> Homo sapiens

<400> 12473

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aaaattagcc | gggcataatg | gcgggtgcct | gtagtcccag | ctactcagga | ggctgaggca | 60 |
| ggagaatggc | atgaaccag | gaggcgagc | ttgcagtga | tggagatcgc | gccactgcac | 120 |
| tccagcctgg | gcgacagagc | gagactccgt | ctcaaaaaaa | aaaaaaaaaa | aaaatc | 176 |

<210> 12474

<211> 177

<212> DNA

<213> Homo sapiens

<400> 12474

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ccgggcacgg | tgccggg | ctgtagtccc | agctactcag | gaggctgagg | caggagaatg | 60 |
| gcatgaacc | gggaggcgga | gcttgagtg | agccgagatc | gcgccactgc | actccaccct | 120 |
| ggcgacaga | gcgagactcc | gcctcaaaaa | aaaaaaaaaa | aaaaaaaaaa | gaaggtc | 177 |

<210> 12475

<211> 154

<212> DNA

<213> Homo sapiens

<400> 12475

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tgtagtccca | gctactcgg | aggctgaggc | aggagaatgg | cgtgaaccca | ggaggccgag | 60 |
| ggttgagtg | gctgagatag | caccactgca | ctccagcctg | ggcgacagag | cgagactccg | 120 |
| tctcaaaaaa | aaaaaaaaaa | aaaaaaaggg | ccgc | | | 154 |

<210> 12476

<211> 166

<212> DNA

<213> Homo sapiens

<400> 12476

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggcgtgcgcc | tgtagtccca | gctactcggg | aggctgaggc | aggagaatgg | cgtgaacccg | 60 |
| ggaggccgag | cttgagtg | gccgagatc | tgccactgca | ctccagcctg | ggtgacagag | 120 |

caagactccg tctcaaaaaa aaaaaacaaa aaaaacatgt aggcag

166

<210> 12477
<211> 142
<212> DNA
<213> Homo sapiens

<400> 12477
cctcagctac tcggggaggct gaggcaggag aatggcggtga acccgggggg tggagcttgc 60
agtgaagcaa gatcgcgcca ctgcactcca gcctgggtga cagagcgaga ctccgtctca 120
aaaaaaaaa aaaaaaaact ta 142

<210> 12478
<211> 131
<212> DNA
<213> Homo sapiens

<400> 12478
tttttttttt gagacagagt ctgcgtctgt cgcccaggct ggagtgtagt ggcgcgatct 60
tggctcactg caagctccgc ctcccgggtt cacaccattc tctgcctca gcctcccaag 120
tagctgggac t 131

<210> 12479
<211> 268
<212> DNA
<213> Homo sapiens

<400> 12479
cggccgaatt ctgccctccg ctaacgagct atagctttgt ggaaatgggc gagtggcggtg 60
cccttgtgag cctcagggcc gcatctgtaa aatgggcata actgtcatgc ctgtctttaa 120
gaacagcctt gggggtaaat gagtggaact catggaaaga tctcagccca caaccttcca 180
cagaacaggc gcttctcaca cagtaagtag caggagtgcga gaggctgcag gcatgaatcc 240
agccagactg cctgggttca agtcccag 268

<210> 12480
<211> 906
<212> DNA
<213> Homo sapiens

<400> 12480
ccccagagtg tgatgttccct cttcctgtgt ccatgtgttc tcattgttca attcccacct 60
atgagtgaag atatacagtg tttgggttttt tgttcttgcg atagtttact gagaatgatg 120
atttccaact tcatccatgt cctacaaaag gacatgaact catcattttt tatggctgca 180
tagtattcta tgggtgtatat gtgccacatt ttcttaatcc agtctattat tgttggacat 240
ttaggttggg tccaagtctt tgcaatagtg aatagtgccg caataaacat acgtgtgcat 300
gtgtccttat agcagcatga tttatagtcc tttgggtata tagcaaagga tggctgggtc 360
aaatgggtatt tctagttcta gatccctgag gaatcgccac accgacttcc acaatgggtg 420
aactagttta cagtcccacc aacagtgtaa aagtgttcct atttctccac atcctctcca 480
gcacctgttg tttcctgact ttttaaatgat tgccattcta actggtgtga gttggatatc 540
cattgtgctt ttgatttgca tttctctgat agccagtgat ggtgagcatt ttttcatgtg 600
ttttttggct gcataaatgt cttctttttga gaaatgtctg ttcattgtcct ttgcccactt 660
tttgatgggg ttggttgggt ttttcttgta aatttgggtt agttcattgt agattctgca 720
tgtagccct ttgtcagatg agtaggttgc gaaaattttc tcccattttg taggttgcc 780
attcactctg atggtagttt cttttgctgt gcagaagctc tttagtttaa ttagatccca 840
tttgtcaatt ttggcttttg ttgccattgc ttttgatgtt ttagacgtga agtccttgcc 900
catgcc 906

| 1. Basic information | |
|---------------------------|---------------------------|
| 1.1. Name of the project | 1.2. Date of the report |
| 1.3. Author | 1.4. Reviewer |
| 1.5. Title of the report | 1.6. Summary |
| 2. Objectives and scope | |
| 2.1. Objectives | 2.2. Scope |
| 2.3. Methodology | 2.4. Results |
| 2.5. Discussion | 2.6. Conclusion |
| 3. Data and analysis | |
| 3.1. Data collection | 3.2. Data analysis |
| 3.3. Results | 3.4. Discussion |
| 3.5. Conclusion | 3.6. Recommendations |
| 4. References | |
| 4.1. List of references | 4.2. Bibliography |
| 4.3. Appendix | 4.4. Glossary |
| 4.5. Index | 4.6. Table of contents |
| 5. Appendix | |
| 5.1. Appendix A | 5.2. Appendix B |
| 5.3. Appendix C | 5.4. Appendix D |
| 5.5. Appendix E | 5.6. Appendix F |
| 5.7. Appendix G | 5.8. Appendix H |
| 5.9. Appendix I | 5.10. Appendix J |
| 5.11. Appendix K | 5.12. Appendix L |
| 5.13. Appendix M | 5.14. Appendix N |
| 5.15. Appendix O | 5.16. Appendix P |
| 5.17. Appendix Q | 5.18. Appendix R |
| 5.19. Appendix S | 5.20. Appendix T |
| 5.21. Appendix U | 5.22. Appendix V |
| 5.23. Appendix W | 5.24. Appendix X |
| 5.25. Appendix Y | 5.26. Appendix Z |
| 6. Index | |
| 6.1. Index A | 6.2. Index B |
| 6.3. Index C | 6.4. Index D |
| 6.5. Index E | 6.6. Index F |
| 6.7. Index G | 6.8. Index H |
| 6.9. Index I | 6.10. Index J |
| 6.11. Index K | 6.12. Index L |
| 6.13. Index M | 6.14. Index N |
| 6.15. Index O | 6.16. Index P |
| 6.17. Index Q | 6.18. Index R |
| 6.19. Index S | 6.20. Index T |
| 6.21. Index U | 6.22. Index V |
| 6.23. Index W | 6.24. Index X |
| 6.25. Index Y | 6.26. Index Z |
| 7. Table of contents | |
| 7.1. Table of contents A | 7.2. Table of contents B |
| 7.3. Table of contents C | 7.4. Table of contents D |
| 7.5. Table of contents E | 7.6. Table of contents F |
| 7.7. Table of contents G | 7.8. Table of contents H |
| 7.9. Table of contents I | 7.10. Table of contents J |
| 7.11. Table of contents K | 7.12. Table of contents L |
| 7.13. Table of contents M | 7.14. Table of contents N |
| 7.15. Table of contents O | 7.16. Table of contents P |
| 7.17. Table of contents Q | 7.18. Table of contents R |
| 7.19. Table of contents S | 7.20. Table of contents T |
| 7.21. Table of contents U | 7.22. Table of contents V |
| 7.23. Table of contents W | 7.24. Table of contents X |
| 7.25. Table of contents Y | 7.26. Table of contents Z |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ttttctctca | aacagattta | ttgaatacag | caaaattcta | tatacaaagt | gacctggacc | 60 |
| tgctgcttca | aaacatgata | ctttcttact | aatatcttga | tagtcgggtcc | atagagcatt | 120 |
| agaaagcaat | tgactcttaa | ataaacagaa | aagtgcctaa | tgacatttaa | atgaatggcc | 180 |
| taactactgg | aacttttagta | gttctataag | gtaattaaca | taggtaggat | ccagttccta | 240 |
| tgacaggctg | ctgaagaaca | gatatgagca | tcaagaggcc | attttgtgca | ctgccaccgt | 300 |
| gatgccatcg | tgttttctgga | tcataatgtt | cctgaaatgc | aggaagaaaa | tattcagtaa | 360 |
| aacgtaatca | gtggggacttc | actgcaagat | taaagatgtt | gttttgcttta | ggatacaata | 420 |
| tttaaaataa | tgtaatgttt | tctacgtata | aaagcaatat | ttaaacataa | caaaacattt | 480 |
| gggaataata | ttaacatata | gcattgtgaac | acgaaatgaa | tccttaaatc | tactacacac | 540 |
| agacaaccac | tgттаататт | tccttggttc | ttttgttcgg | ttttttaggc | actgtctctgc | 600 |
| tatgttgccc | aagctggcct | caaactcctg | ggctcaagca | atcctgtcttc | agccacctca | 660 |
| gtagctggaa | ctacaaaaaa | aaggctttac | tggtctttgt | tttcttttgca | tgtatatgat | 720 |
| acagtcattg | gctgcataac | aatgcttcag | tcaacagtgg | accctacata | tgatgggtgg | 780 |
| cccgtaatga | tataatggaa | ctgaaaaaatt | cctattgcct | agtgcctttt | taaccgtccc | 840 |
| agcatcacat | agcacaacac | actactcaca | tgtttgtggt | aatgctggtg | taaacaaaatt | 900 |
| gtgctgccag | tcataaaaaag | tatagcacat | acaattatgt | acagtacgta | acgcttgata | 960 |
| ataataaatt | actatgctat | ggtttatgta | tttactatac | tttttttctt | tttttttgaga | 1020 |
| cggagtcttg | ctctgttgcc | caggctggag | ggcagtggcg | tgactctcag | tcactgcaac | 1080 |
| ctctgcctcc | cgggttcaag | caattctcct | gcctcagcct | cctgagttagc | taggattaca | 1140 |
| ggtgcctgcc | accatgccta | atttttgtat | tttttagtaga | gacagggttt | caccatgttg | 1200 |
| gttaggctgt | ctcacactcc | ttacctcaag | tgatctgccc | gccttgccct | cccaaagtgc | 1260 |
| tggtgattaca | agtgtgagcc | accatgccgg | gcctactttt | tatcattatt | ttagagtata | 1320 |
| ctactcctac | ttattaagac | aaggtttaact | ataaaacagc | ctcagacagg | tccttttagga | 1380 |
| ggtattccag | aaggatatcat | cattacagga | gatgacaact | ccatgcattgt | tactgccctg | 1440 |
| gatgaccttc | cactggggaga | agatgtggag | atagaagcca | gtgatattga | tgatcctgac | 1500 |
| cctgtgcagg | cctaggctaa | tgtgtgtttc | ttctttgtct | ttaacaaaaa | agtctaaaaa | 1560 |
| gtaaaaaagt | ttaaaaaaaag | aatttttgta | cagctgtaca | actgttttaa | gtgttattat | 1620 |
| aaagtcaaaa | agttttattg | actcactcag | agcaacttcc | agtgttgtaa | gctccattat | 1680 |
| ggtaagtgcc | ctattcagat | atacctttta | aaaaatttcc | ctataccata | cttttactgt | 1740 |
| atcttctcta | cgtttagata | cataaatacc | actgttataa | ctgcctacat | tatttaggct | 1800 |
| acaaatcttt | gtagtctaag | agcaatacag | cctagggtgtg | taatagggtg | taccacctag | 1860 |
| gtttaagtag | actctatgat | gttcatacaa | caaaactgcc | tgacacattt | ctcagaacat | 1920 |
| atccccattg | ttaagcaatg | catgactgta | tgttttttct | ttttacaagg | ctgtgatagt | 1980 |
| agcagttgta | tatatatact | tttttttaca | tattattctg | aggaccatca | cttggaatat | 2040 |
| ctttagtaatt | tttattgctt | tagaagtaat | ttttggctgg | gtgcagtgac | tcattcctgt | 2100 |
| aatcccagca | ctttggggagg | ctgaggcggg | caaattactg | gagcccagga | gttcgagacc | 2160 |
| agcctgggaa | acatggtgaa | acctcatctc | tacaaaaaaa | tacaaaaaatt | agctgggtgt | 2220 |
| ggtagtgtag | acctgtagtc | tcagctacaa | ctcggggaggc | tgagttgggt | gaatcgcttg | 2280 |
| agcccgggtg | ggttgaaagtc | acagtgaccc | atgatcacac | cactgtactc | cagcctgggtg | 2340 |
| ccagagcaac | accctgcctc | aaaaagaaaa | aaaaaaaaaag | taatttttat | tctctgatta | 2400 |
| gttttccttt | gtgctattttg | ttacttttctt | tttgttggtg | aactgatagc | ttctgccaat | 2460 |
| tcttattctt | catttaaata | gcattgtggc | ctgagagcac | attagcttta | gggatcaact | 2520 |
| tgtctgttcc | tgtgattcaa | aagattaaga | actttttccca | aagtagtctg | aataaggaat | 2580 |
| cactgatgaa | cacagggcgg | gccccgccca | attttaccag | gaatttttct | gaacaaaaaag | 2640 |
| gaaaggatct | gctgaaatct | actcaccctat | tatctgattc | tagacacacc | acaggaatat | 2700 |
| cagtg | | | | | | 2705 |

<400> 12482

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|------------|-----|
| ggcatggggca | aggactttcat | gtctaaaaacg | cctaaaagcaa | tggcaacaaa | agacaaaatt | 60 |
| gacaaatggg | atctaatttaa | actaaagagc | ttctgcacag | caaaagagtc | taccatcaga | 120 |
| gtgaacaggc | aacctataca | atgggagaaa | aattttgcaa | tctactcatc | tgacaaaggg | 180 |
| ctaatatcca | gaatctacag | tgaactcaaa | caaattttaca | agaaaaaaac | aaacaacccc | 240 |
| atcaaaaagt | gggcaaagta | tatgaacaga | cactttctcaa | aagaagacat | ttatgcagct | 300 |
| aaaagacaca | tgaaaaaatg | cccattcatca | ctggccatca | gagaaatgca | aatcaaaacc | 360 |
| acaatgag | | | | | | 368 |

<210> 12483
 <211> 2925
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12483 | | | | | | |
| ctcccagagta | gctggggacta | caggcgcccc | ccaccacgcc | tggctaattt | tttgtatttt | 60 |
| tagtagagac | gggggtttcac | cgcgttagcc | aggatggtct | tgatctcctg | acctcgtgat | 120 |
| cgcgccgtct | cggcctccca | aagtcctggg | attacaggcg | tgagccaccg | cgcccggtg | 180 |
| agatgggtat | tattaagaaa | ttaagatgtg | gattaccagg | gtaagtcata | tttcaatgtg | 240 |
| caacctctgc | aagtcacacag | ggtgtgatat | ggacattaag | gagatctatg | gacgaatagc | 300 |
| gtatgatacc | ttgacaagtt | gacaaaaatg | aaaatagttg | aatggccata | gaaaaaaacc | 360 |
| agcttttttag | ccccataggc | cgaggggattc | aggagggctg | gctacgggca | ttttggaatg | 420 |
| gaagatgttg | taccaacaaa | tcaagcttag | gttcctggca | atltgcccac | atataatatg | 480 |
| tgaaagtcca | gatgtgaaat | aaatctgcgg | ctaatagtaa | gaacctagcc | acaggagtta | 540 |
| aaacttacgg | ttctggggacc | agatggactg | ccttctaata | ttagtcttac | tacatttttag | 600 |
| cggtaaaacc | ttcagcaagt | tatttagcct | ccagcatctc | agttttctca | tctgtaaaat | 660 |
| ggtgataatg | ctactcttac | attgggttgt | agtaggataa | aaggagaaaa | cgtatgtaaa | 720 |
| ggattttagta | gaaactttatt | aaaattaagc | aattattatt | tctcaattct | aagattctaa | 780 |
| cctgcaaaag | gcataaggca | gctgctgaga | acaggggtgag | aagataggga | ttcggtcagg | 840 |
| aaaagtcttg | tttccctgtt | gctgttggtg | gttttggttg | ctcatttggtg | tggttttttt | 900 |
| attaatcatt | ttcacttggtg | tttattgaca | agcttaataca | ataatgccat | tgacattttag | 960 |
| taaaagtaaa | tttcccttaag | tgatctccca | ggtagcaatg | tttattcatt | atgtgtggag | 1020 |
| tagagatagg | aattattttta | ttgctgcaaa | tattttatta | ttgggttttc | aagttttaaa | 1080 |
| agtaatttta | atttttttaat | ttttgtgagt | atatagtaag | tgacacattt | tatgggttac | 1140 |
| atgagatatt | ttgatacagg | catatgatgt | gtaataatca | catcagggtg | aacagggtaa | 1200 |
| gcacacctc | aagcattttgt | ccttttttgt | attacaaaaga | atctaattat | actctttttag | 1260 |
| ttattttttaa | atgtacaata | aattatttgt | gactatagtt | ttgccactgc | aaacaataga | 1320 |
| aggcttcctg | atacagcctc | ctagtcattg | gagttctatg | gcagaattcc | taaagttttt | 1380 |
| aagtttcatg | agatggctaa | atlttggtta | atatgatact | ttctttgaac | agatgctaca | 1440 |
| gaggccaata | taaaggagtg | taacagagtg | acacctgtga | tcagtatctc | tccaactaca | 1500 |
| aagagtgtcc | cttaaatttc | ttctgtgtgg | ttcctctttt | tttttttttt | tttttttgag | 1560 |
| acgaagtctc | gctctgtcgc | ccaggctgga | gtgcagtggc | gcgaacttgg | ctcgtgcaa | 1620 |
| gctccgcctc | ccgggttcac | tccattctcc | tgccctaccc | tctcaagtag | ctgggactac | 1680 |
| agggtgctgc | caccactccc | ggctaatttt | tttttgcatt | tttagtgaga | gatgggggtt | 1740 |
| cactgtgtta | gccaggatgg | tctccatctc | ctgacctcat | gatccagccg | ccttggcctc | 1800 |
| ccaaagtgtc | cggattacag | gcgtgagcca | ccgcgtctcg | cctgtgtggc | tcctcttaag | 1860 |
| taatactctg | cttcgtccat | ataagcagag | gtcagaactg | gctaagaatt | tccttatgtg | 1920 |
| tgttttatcct | gatgtttttc | tactgtcact | tttcttttct | tatggattag | cattgaggga | 1980 |
| atggtcagat | ggtgcctgcg | tgagtctgat | tgaaacattt | tagcggcggg | gtgcgggggt | 2040 |
| tgatggcatg | tgcaatagtt | taggatattt | gagttagtgg | cagaatgtag | acatgagggt | 2100 |
| gagtagagag | tgcgtagcag | agcaagcaat | tcagggaatct | atgttggtta | attacttttg | 2160 |
| ttttgtggac | atltttattct | acctgaaaag | attatctagg | aactacagaa | attaatgacg | 2220 |
| tgtagtgga | actttgcaca | gtgtaagtgt | tatccattta | cttctcttag | tttccaatac | 2280 |
| aatgactctc | ctggtagctg | tcatacatga | taaatataat | ttcgtaata | aaattatatt | 2340 |
| ttatataatt | cgctacttta | aacaagtgtg | caatataact | cagttataaa | tgtacagtaa | 2400 |
| caaagatcaa | tggataataa | atactttctg | gttcatcttc | atggatacat | tctatttttg | 2460 |
| tttgtctcac | aagcagtaat | cagactatga | atcatgatat | agctccataa | acacttactt | 2520 |
| tatagcaatt | cactgatata | tgctccacca | aaaaaaatta | agagacggat | acaagcaatt | 2580 |
| taaagcttct | gtgtgtgtgt | gcatgcaacc | gatgtgtatg | gctttttttt | tttttttttt | 2640 |
| ttttgacaca | gagtgtcgct | ctgtcgccca | ggctggagtg | cagtggcggtg | atctccgctc | 2700 |
| actgcaagct | ccgcctgcct | ggttcacgcc | attctcctgc | cttagcctcc | caagtagctg | 2760 |

09950083 091201

ggacttcagg cgctgacac cagcctggc taattttttg tatttttagt agagacggg 2820
tttcaccgtg ttatccagga tggctccat ctctgacct cgtgatccac ctgcctccgc 2880
ctcccaaagt gctgggatta caggcttgag cctcctcgcc cggcc 2925

<210> 12484
<211> 87
<212> DNA
<213> Homo sapiens

<400> 12484
ctcacgcctg taatcccagc actttgggaa gccgaggcgg gtggatcacg aggtcaggag 60
tttgagacca gcctggccaa catggtg 87

<210> 12485
<211> 127
<212> DNA
<213> Homo sapiens

<400> 12485
agacggagtc ttgctctggt gcccaggctg gaggcagtg atgtgatctc ggctcactgc 60
aacctccgct tcccgggttc aagcgattct cctgcctcag cctcccaagt agctgggatt 120
acaggcg 127

<210> 12486
<211> 212
<212> DNA
<213> Homo sapiens

<400> 12486
tatagagaaa gaaataaggg ggcccagggg accagcgctc agcatatgga ggatcctgcc 60
agcctctgag ttcccttagt atttattgat catttttggg tgtttctcag agagggggat 120
gtggcagggc cataggataa tagtggagag aaggctcagca gataaacacg tgaacaaagg 180
tctctgcac atagacaagg taaagaatta ag 212

<210> 12487
<211> 127
<212> DNA
<213> Homo sapiens

<400> 12487
agacggagtc ttgctctggt gcccaggctg gaggcagtg atgtgatctc ggctcactgc 60
aacctccgct tcccgggttc aagcgattct cctgcctcag cctcccaagt agctgggatt 120
acaggcg 127

<210> 12488
<211> 87
<212> DNA
<213> Homo sapiens

<400> 12488
ctcacgcctg taatcccagc actttgggaa gccgaggcgg gtggatcacg aggtcaggag 60
tttgagacca gcctggccaa catggtg 87

<210> 12489
<211> 1548

<212> DNA
<213> Homo sapiens

<400> 12489

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| agcagctctt | gcagtgggtg | ggcgacttct | tgctgtacct | gctggccagc | ctacccaacc | 60 |
| aggtgcgcca | tgctctcccc | taaggccccg | ccccccacct | gggcccccat | ctcatcagga | 120 |
| ccccgcttcc | ctgccccctg | ccctcaaaac | cacctcagcc | ccgccccctag | ttggagtccc | 180 |
| gccccctactt | ggagtcccg | ccctacttgg | agtcccgcgc | ctgcttggag | tcccacctca | 240 |
| gccccgcccc | tggttggagt | cccaccccta | cttggagtcc | cacttcctga | gtctgtctct | 300 |
| tcttaaacc | ccacttccta | gccctgcccc | acttcctagc | cctgccccac | tccctagccc | 360 |
| tgccccacct | cggagccctg | ccccatctcg | gagccctgcc | ccacctcgga | gccctcccc | 420 |
| acctcgagc | cctccccac | ctcggagccc | tgccccacct | cggagccctg | ccccacctcg | 480 |
| gagccctgcc | ccacctcgga | gccctcccc | acctcgagc | cctccccac | ctcggagccc | 540 |
| tgccccacct | cggagccctc | ccccacctcg | gagccctcct | ctccatgaag | cctctgctgt | 600 |
| aagaagcctt | tccttggcca | cacccttcct | gccccattctc | aaagccccgc | ctcccaggcc | 660 |
| ctgctccttc | tcagccccac | ccctacacga | aggccggttc | gccttgctcc | tgctgtctgt | 720 |
| gccccacccc | cttaccctcc | ccagctccct | gcgcctgggg | tgggcggcct | tgaaatcaag | 780 |
| tctccatcca | cacctccacc | tccagttttg | cggcttgctg | gccccctgacc | agggctccaa | 840 |
| cctcgcccc | acccccccgc | cgggtacactc | tgctcctgcc | cagctgtgat | ttcttctgcc | 900 |
| ccacccaccc | ggcttcatcc | tgccctgggg | cccgccttc | tccaccgcgc | ccatcacgga | 960 |
| cggtttgaag | tcctctctct | ctttttgtgg | ggctttaggc | tgccaggggc | caccctggg | 1020 |
| gcctccccct | ccctggctct | ctcagctccc | agtacagtca | ccaggggccc | gggcccgcag | 1080 |
| ctgtaggagg | gggcggctgc | tcctccacgt | gcagggtggg | atattggcct | cagccagagc | 1140 |
| ctcgtcttag | tcttgtggac | tctcagggat | gggacgactc | tgcaaatggg | gctgtcctgg | 1200 |
| gccctgcagg | gctctgagca | gcgtccccgc | catccacca | ctcggtgcca | gaagcacccc | 1260 |
| agtcttgacc | accacaaatg | tcccagaccc | tgccccattgc | cccccggtcg | gggttccacc | 1320 |
| gaccccaaga | cacttcaccc | catcgccatc | tgccccccgc | cgccccagcc | acaccgatgc | 1380 |
| ctcttttcggg | caggggttccc | tgctgaggcc | gggccacagc | tttctgcggg | acggcacctc | 1440 |
| gctgggcatg | cttcgggaat | tgatggtggt | catccgcac | tggggccttc | tgaagcccag | 1500 |
| ctgcctgccc | gtgtatacgg | ccacctagga | taccaggagc | agcatgtc | | 1548 |

<210> 12490
<211> 4704
<212> DNA
<213> Homo sapiens

<400> 12490

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| tattattata | ctttaagttt | caggggtacat | gtgcacaatg | tgcaggtttg | ttacacatgt | 60 |
| atacatgtgc | catgttgggtg | tgctgcaccc | atcaactcgt | catttagcat | tagatatatc | 120 |
| tcctaattgct | atccctcccc | actcccccta | ccccacaaca | gtccccgggtg | tgtgatgttc | 180 |
| cccttcctgt | gtccatgtgt | tctcattgtt | caattctcat | ctatgagtga | gaacatgtgc | 240 |
| tgtttggttt | tttgtccttg | caatagtttg | ctgagaatga | tggtttccag | cttcatccat | 300 |
| gtccctacaa | aggacatgaa | ctcatccttt | tttatggctg | catagtattc | catggtgtat | 360 |
| atgtgccaca | ttttcttaat | ccagtcctatc | attgttggac | atttcggttg | gttccaagtc | 420 |
| tctgctattg | tgaatagtgc | cgcaataaac | atacatgtgc | atgtgtcttt | atagcagcat | 480 |
| gatttacaat | cctttgggta | tataccagct | aatgggatgg | ctgggtcaaa | tggtatttct | 540 |
| agttctagat | ccctgaggaa | tcgccacacc | gacttcacac | atgggtgaac | tagtttacag | 600 |
| tcccaccaac | agtgtaaaag | tgttcctatt | tctccacatc | ctctcagcac | ctgttggttc | 660 |
| ctgacttttt | aatgatctcc | attctaactg | ttgtgagatg | gtatctcatt | gtggttttga | 720 |
| tttgcatttc | tgatgatggc | cagtgatgat | gagcattttt | tcatgtgttt | tttggctgca | 780 |
| taaatgtctt | cttctgagaa | gtatctgttc | atatcctttg | cccacttttt | gatgggggtg | 840 |
| tttgtttttt | tcttgtaaat | ttgtttgagt | tcattgtaga | ttctggatat | tagccctttg | 900 |
| tcagatgagt | aggttgcaaa | aactttcttc | cattctgtag | gttgccctgtt | cactctgatg | 960 |
| tggttttctt | ttgctgtgca | gaagctcttc | agtttaatta | gatcccat | gtcaattttg | 1020 |
| gcttttgttg | ccattgcttt | tggtgtttta | gacatgaagt | tcttaccat | gcctatgtcc | 1080 |
| tgaatggtat | tgccataggtt | ttcttctagg | gtttttatgg | ttttaggctc | aacatgtaag | 1140 |
| tctttaatcc | atcttgaatt | aatttttcta | taagggtgtaa | ggaaggggatc | cagtttcagc | 1200 |
| tttctacata | tggttagcag | gttttcccag | caccatttat | taaataggga | atcctttccc | 1260 |
| cattgcttgt | ttttgtcagg | tttgtcaaag | atcagatagt | tgtagatatg | tgacattatt | 1320 |
| tctgagggct | ctgttctgtt | ccattggtct | atatctctgt | tttggtagca | gtaccatgct | 1380 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gttttgggta | ccatagcctt | gtagtatagt | ttgaagtcag | gtagtgtgat | gcctccagct | 1440 |
| ttgttctttt | ggcttaggat | tgacttggca | atgtgggctc | ttttttgggt | ccatatgaac | 1500 |
| tttaaagtag | ttttttccaa | ttctgtgaag | aaagtcattg | gtagcttgat | gggaatggca | 1560 |
| ctgaatcttt | aaatgacctt | gggcagtatg | gccattttca | cgatattgat | tcttcctacc | 1620 |
| catgagcatg | gaatgttctt | ccatttgttt | gtatccccct | ttatttccatt | gagcagtggt | 1680 |
| ttgtagttct | ccttgaagag | gtccttcaca | tcccttgtaa | gttggattcc | taggtatttt | 1740 |
| attctctttg | aagcaattgt | gaatgggagt | tcactcatga | tttggctctc | tgtttgtctg | 1800 |
| ttattgggtg | ataagaatgc | ttgtgatttt | tgcacattga | ttttgtatcc | tgagactttg | 1860 |
| ctgaagttgc | ttatcagcct | aaggagattt | tgggctgaga | tgatgggggt | ttctagatat | 1920 |
| acaatcatgt | catctgcaaa | cagggacaat | ttgacttctt | cttttcgtaa | ttgaatgccc | 1980 |
| tttatttcct | tctcctgctt | gattgccctg | gccagaactt | ccacactatg | ttgaatagga | 2040 |
| gtggtgagag | agggcattcc | tgtcttgtgc | cagttttcaa | agggaaatgct | tccagttttt | 2100 |
| gcccattcag | tatgatattg | gctgtgggtt | tgctatatcc | agctcttatt | attttgagat | 2160 |
| acatcacatc | aataccta | ttattgagag | tttttagcat | gaagcattgt | tgaattttgt | 2220 |
| caaaggcttt | ttctgcatcc | attgagataa | tcattgtggt | tttgtctttg | gttctgttta | 2280 |
| tatgctggat | tacgtttatt | gattttcgt | tggtgaacca | gccttgcac | ccagggagga | 2340 |
| agccactag | atcatggtgg | ataaaccttt | tgatgtgctg | ctgtatttgg | tttgccagta | 2400 |
| ttttattgag | gattttttgca | tcaatgttca | tcaaggatat | tggtctaaaa | ttctcttttt | 2460 |
| tggttgtgtc | tctgccaggc | tttggatatca | ggatgattct | ggccacataa | aatgagttag | 2520 |
| ggaggattcc | ctctttttct | attgatttga | atagtttcag | aaggaaatggt | accagctcct | 2580 |
| ccttgtagct | ctggtagaat | tcggctgtga | atccattctg | tccctggact | tttttgggtg | 2640 |
| gtaagctatt | gattattttcc | tcaatttcag | tgccctgttt | tggtatatcc | agagatttcaa | 2700 |
| cttcttctct | gtttagtctt | gggaggatgt | atgtgtcaag | gaatttatcc | atttcttcta | 2760 |
| gattttgtag | tttattttgca | tagagggtgt | tatagtattc | tctgatggta | gtttgtattt | 2820 |
| ctgtgggata | gggtggtgata | tcccctttat | cattttttat | tgctgtctatt | tgattcttct | 2880 |
| ctcttttctt | ctttatttagt | cttgctgtct | atcaattttg | ttgatctttt | caaaaaacca | 2940 |
| gctcctgaat | tcattaattt | tttgaagggt | tttttgtgtc | tctatttctc | tcagttcttc | 3000 |
| tctgatctta | gttattttctt | gccttctgct | agcttttgaa | tgtgtttgct | cttgcttctc | 3060 |
| tagttctttt | aattgtgatg | ttagggtgtc | aatttttagat | ctttcctgct | ttctcttttg | 3120 |
| ggcatttagt | gctataaaat | tccctctaca | cactgctttg | aatgtgtccc | agagattctg | 3180 |
| gtatgttgtc | tttgtttctca | ttggtttcaa | agaacacctt | tatttctgcc | ttcatttctg | 3240 |
| tatgtaccca | gcagtcattc | aggagcaggt | tgttcagttt | ccatgtagtt | gagtggtttt | 3300 |
| gagtgaagtt | cttaatcctg | agttctagtt | tgattgcact | gtggtctgag | agacagtttg | 3360 |
| ttataatttc | tgttctttga | catttgctga | ggagtgcctt | acttccaact | atgtcaattt | 3420 |
| tggaataggt | gtggtgtggt | gctgaaaaga | atgtatatcc | tgttgatttg | gggtggagag | 3480 |
| ttctgtagat | gtctatttagt | tccgcttggt | ttagagctga | gttcaattcc | tgggtatcct | 3540 |
| tgttaaactt | ctgtcttggt | gatctgtcta | atgttgacag | tggggtgtta | aagtctctga | 3600 |
| ttattattgt | gtaggagtct | aagtctcttt | gtagttcact | aaggacttgc | tttatgaatc | 3660 |
| tgggtgctcc | tgtattgggt | gcataatat | ttaggacagt | ttgcttttct | tggtgaattg | 3720 |
| atccctttac | cattatgtaa | tggccttctt | tgtctctttt | gatcttttgt | ggtttaaagt | 3780 |
| ctgtttttat | agagactagg | attgcaatcc | ctgccttttt | ctgtttttcca | tttgcttggt | 3840 |
| agatcttctt | ccatcccttt | attttgagcc | tatgtgtgtg | tctgcacgtg | agatgggttt | 3900 |
| cctgaataca | gcacactgat | gggtcttgac | tctttatcca | atttgccagt | ctgtgtcttt | 3960 |
| taattggagc | atttagccta | tttacattca | aagttagtat | tgttatatgt | gaatttgatc | 4020 |
| ctgtcattat | tatgtcagtt | ggttattttg | ctcattagtt | gatgcagttt | cttcctagcc | 4080 |
| tcgatgggtc | ttacaatttg | gcattgtttt | gcagtggctg | gtactgggtg | ttcctttcca | 4140 |
| tgtttagtgc | ttcttccttc | aggagctctt | ttaggacagg | cctgggtggg | acaaaatctc | 4200 |
| tcagcatttg | cttgtctgta | aagtattttt | tttctccttc | acttatgaag | cttagttttg | 4260 |
| ctggatatga | aattctgggt | tgaaaattct | tttctttaag | aatgttgaat | attgcccccc | 4320 |
| actctcttct | ggcttgtaga | gtttctgcca | agagatcagc | tgttagtctg | atgtgcttcc | 4380 |
| ctttgtgggt | aaccgcacct | ttctctctgg | ctgcccttaa | cattttttcc | ttcatttcaa | 4440 |
| ctttggtgaa | tctggcaatt | atgtgtcttg | gagttgctct | tctcgaggat | tatctctgtg | 4500 |
| gtgttctctg | tatttctctga | atttgaatgt | tggcctgcct | tgctagattg | gggaagttct | 4560 |
| cctggataat | atcctgcaga | gtgttttcca | acttgggtcc | attctccccg | tcactttcag | 4620 |
| gtacacaaa | cagacgtagg | tttgggtctt | tcacatagtc | ccatatttct | tggaggcttt | 4680 |
| gtttcttttt | attctttttt | ctct | | | | 4704 |

<210> 12491

<211> 125

<212> DNA

09950063 091201

<213> Homo sapiens

<400> 12491

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gctacttggg | aggctgaggg | agaagaatcg | cttgaaccca | ggaggcagag | gttgagcgga | 60 |
| gctgagatcg | caccattgca | ctccagcctg | ggcaacaaga | gtgaaactcc | atctcaaaaa | 120 |
| aaaaa | | | | | | 125 |

<210> 12492

<211> 7203

<212> DNA

<213> Homo sapiens

<400> 12492

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|------|
| aagcagggga | gaaagtgcgt | tttttattta | tagggccatc | tgcaaaaggg | gcaaactgtc | 60 |
| tgtcaccacc | cgctccacca | actttacggg | cgggggtggg | ggtagggagt | cattcctccc | 120 |
| gccaaccccc | gcaatcctca | gtaacctata | atctggggaa | aagggtcccg | agggctgggt | 180 |
| catcccgtgc | ctcccactgg | gtttaggacg | cgacagcggg | atgggcagga | ggtggagggtg | 240 |
| cacttctgca | aatctcaaga | accgaagccc | tggaggcggc | ggatgagaaa | gtccacagcc | 300 |
| ctagcaattt | tgggtgtgta | ggcagggatt | tagcgtatgt | ccacagccgc | tctagtggag | 360 |
| gtgccccac | ccacgttcct | cggaagggca | gcgtccatc | cccaccctgc | taccctttcc | 420 |
| ccgagagcct | aatcccacct | tagctggcgc | tcccggagcc | tccggggcag | gagggaggcg | 480 |
| tggcctcggg | cgccccgccc | ctttgatgtg | cgccggcacc | gctgcgattg | gacagtcgct | 540 |
| tgtgacgttg | gggactgcgg | tgggctccgc | tgtgcagca | gccgcagcgc | cggccgcggc | 600 |
| tccggctccg | gctccggctc | ccgggcattt | aaaggggacg | cggcggctgc | ccggggggga | 660 |
| tgaggggcaa | gtggaggggg | cggctcagac | gcacatcatc | ctcagtcctc | cgggactgga | 720 |
| gggactcgtg | agccggagcc | cagaaatccg | ggggtggata | agacaccgcg | tcccctccaa | 780 |
| tcccgttaag | cacccttgc | tccatcctgc | gccccaatat | ctcagctagc | ccccttcccc | 840 |
| acttcttaca | ctccaaactc | agccgggaca | gacctctgct | gccgccgccc | ccacgtgagt | 900 |
| cctgggctcc | gggagatagg | ggagggctgg | ggtcccggcg | cggggtgggg | gctgtggagt | 960 |
| ttgaaggcgc | tccttcacgc | gcgtggcact | gggggagttc | tggagctcag | gagtgcgtcc | 1020 |
| ccttctctct | cctaccaggg | aacatagtgc | tggggtatcc | ctccgtcccc | gactctgaca | 1080 |
| aagccaagga | attggtgtcc | ccttgctccc | tgccaccac | aataccctc | cccagaccgc | 1140 |
| gcaccccccg | cccgcatttg | agcccagcgc | ccgccagccg | ggggtgcgcc | agagtgcgtg | 1200 |
| cttctctagtc | acctctaaaa | atatctctcc | cccaacccta | ccggcagctg | ccacctccct | 1260 |
| gcccctgccc | ctgcccctag | gatccccctc | cagcttgtcc | tcccacccag | ggagtgcccc | 1320 |
| gaggtgactg | ctagaccag | acgcctcact | ggcaccaggg | cgcagggcca | ccaccgccag | 1380 |
| ctggtcagga | ccgcaagctc | cctgccact | ggagctccca | gggccaaggg | gggagctcca | 1440 |
| gctgcaattc | tcccaagagg | cgccagagac | tcctgagttc | taatcgcggt | tccgatgctg | 1500 |
| tgtgaccctt | aggatgttag | cctgacctct | ctgggcctct | gttttttcta | tctgctgctc | 1560 |
| gggctgtgtg | agcaaggaag | atggtcatgt | ttgggagcac | tgtctgggaa | agggagggaa | 1620 |
| ttctagctta | gttgttggat | ctgatttcta | gtgattgata | caaggagact | tgtttttgga | 1680 |
| cagagagggc | ttgttactgt | ggtctttctg | gagtcctcgc | ctcccatcc | tattctgca | 1740 |
| catttctttt | ggaaaactat | cccaaaactt | ttctaggaac | tccatctgcc | cagtaagagg | 1800 |
| ggaatttgaa | acttagggcc | tgtatcagag | aggggcctgt | ttccctccca | cccccttccc | 1860 |
| acagatttaa | tctaagagca | tttgtgtgaa | aggcgggaga | agcaggcagg | gatctgtgac | 1920 |
| ccggtgcaga | attaaggagg | caggcactgc | ttttaggtgg | gactagaata | tggactccct | 1980 |
| gcaaccccc | agaagccctt | ctccctgctc | tggcctgtga | gagaagctca | gatcctgccc | 2040 |
| cctactctga | gggactctgt | ttggtgacca | caaaaggatt | tgatgactca | gaacaaaggt | 2100 |
| gtcagagggtg | agagaccttt | tggagcatca | caggagccaa | attccaactg | gggaaggggt | 2160 |
| tcctctgact | cctgtggggg | ggggacgagg | tgtcacagca | tggccttctc | agttttctgg | 2220 |
| ggaagaaacc | caagatgcct | gactttctgc | cttggagact | gaaagaaaca | agggcaactc | 2280 |
| accaaacaat | aagtgtttta | ctgaatcccc | tagatactat | tattagcaga | aaaatgtaac | 2340 |
| tgtattttat | gatgagaat | gaggagtgtt | gtgtgtgtgt | gtgtgtgtgt | gtgtgtgttg | 2400 |
| gggatggggg | tactccctct | gtcaccagg | ctggagtgc | gtggtaccat | tacagctcac | 2460 |
| tgcaacctct | gtctcctggg | tttaagtgat | cctcgtccct | cagcctccca | agtagctggg | 2520 |
| actatgggca | caagctacca | taccagcta | atTTTTTTTT | TTTTTTTTTT | TTTTgagacg | 2580 |
| gagtctcgct | gtcggccagg | ctggaatgca | atggcgcaat | ctcggctcac | tgcaagttcc | 2640 |
| gcctcccggg | ttcacgccat | tctcctgcct | cagcctcccg | agtagctggg | actacaggcg | 2700 |
| cccgccacca | caccagcta | atTTTTTgtg | TTTTtagtag | agacagggtt | tcaccatggt | 2760 |
| agccaggatg | gtctcgatct | tctgacctcg | tgattcgctt | gcctcggcct | cccaaagtgc | 2820 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tggagattaca | ggcatagagcc | accacgccc | gccttaattt | ttgttttttaa | agagacaggg | 2880 |
| ttttgccatg | tcacccagtc | tgggtctcaa | ctcctagact | taagtgatct | gcctgcctcg | 2940 |
| cctcccaaag | tgttgggatt | acaggcttaa | gccaccctgc | ctggctgaaa | aaatgagaag | 3000 |
| ttttgaccat | aattaatgat | caatagaata | gaaaaaagga | aggaaggaag | gaaggaagga | 3060 |
| aggaggaagg | aaggaaggaa | ggaaggaagg | aaggaaggaa | ggaaggaagg | aaggagagag | 3120 |
| acaggaagga | aggaagggca | aagtaatgag | acccttctct | ataggatgaa | agctggtctc | 3180 |
| tgggtagctg | tgggtgacc | cttggaaatc | tgtatctac | cccttgcttc | tccagatgct | 3240 |
| gcatgtttgc | ttttacaagg | ggagtggcat | ctcgactctt | tctcttataa | atcgctggc | 3300 |
| tgaggttgga | catgtgatat | cagctgggaa | tctggaaggt | tggaagtccc | tccagatagg | 3360 |
| gactggggac | agctccaacc | catgccattt | ccttgctcct | catgcaaccc | tccccttctc | 3420 |
| tcccacctcc | tccttgacct | gtcttctctc | ccatccctca | ccctctcttt | gcccactgct | 3480 |
| tcattcagct | ttgaccacct | ctcctaattc | ctagattaga | agttcttgga | aaaaactgag | 3540 |
| agccgcattc | catccctgca | gaaggattta | acacatgtgt | ggtctggttg | ttgtgagggg | 3600 |
| gggagtaccg | caagatggat | attgctagag | cctgtaccct | gctcctggga | tgtccccgtc | 3660 |
| tctgtcctg | ggcgattgct | tctccctcct | gaatagtcca | gggagagtgt | caccttgaca | 3720 |
| gaggggttta | cagtgctacc | attgtcacca | ccagagcgca | gcagccagcc | agacctctgc | 3780 |
| ttctctcaag | gtcttgtctc | ctggctctct | ttatctttcc | aaactctgtc | ccagctgctt | 3840 |
| ctggtctcat | tcaaccccag | gagcacaggt | gggagagtag | agaggcactg | gaagctgtag | 3900 |
| gtggtgtcct | ttgccactgt | cttgggtgaag | tccccaaag | gttaaaccce | gttcccaaag | 3960 |
| ccacaccaaa | gtcttgccaa | gatttcaacc | tgactcttct | gtgtgactgc | cggacccctg | 4020 |
| agagcaacag | ggaggccatt | cccagatcat | ctgtgagacc | tggctggggg | tcccagaccc | 4080 |
| cagctatggt | atagtaagct | ttggtcagct | ccttcctttt | tgagggcatg | aggaaggcaa | 4140 |
| agctgcagtc | aagcgttcat | gaagcagctc | atgccccatg | taaacagcgt | ggctgggttag | 4200 |
| ttaacctctc | tgagcccttc | tcatttggct | aattctatgc | tgatgagtag | tgagagataa | 4260 |
| tgagtgaagg | tgatttgtaa | actatgatgt | gtcaaacaca | tttaagggac | aatgatgata | 4320 |
| ctagagaaaa | aacactggac | tcaggctcag | atgtgggttt | gagatctgtc | tgccatttac | 4380 |
| agtgggtgac | ttttgggaaa | gtcagttaac | ttctctgggt | ctccaatacc | atctgaaacc | 4440 |
| tctctagagt | tgtaggcact | gggcctattt | gaggggttgt | ttttgctaag | accttgggaa | 4500 |
| tgccctctgt | agctcagcag | aaggaccagg | gccagggtgg | tattccttgt | ggaagcaaag | 4560 |
| tcagctgact | gggcaccctc | aaatgaactt | ttgtgggtgt | caggaacgtg | tgacgacggc | 4620 |
| tggaggccaa | cagagtcctc | acagggtggg | ctcacggtaa | tgcaccgaca | atgagtggct | 4680 |
| gttttccagt | ttctggcctc | cgctgcctat | ctagggttaag | tgggtccctc | caggggtctc | 4740 |
| ctaggatgag | gcctcagccc | ccagtttccc | atcacctttc | catagggcct | tgggagaggc | 4800 |
| cctatccagc | ccgtttttag | tttacctcca | ctctactggc | ggcttcatta | attctagaaa | 4860 |
| gcttccatcg | cagggtgggg | gtcctgatgc | tttatatctg | caatttgaag | gatcctgggc | 4920 |
| cactgaaatg | cccactggat | gttgatgaga | ccagaggggtg | actctaggga | tgaggtggaa | 4980 |
| gggacagctt | ggttagggag | gcagatagcc | aatcgaaatc | ccagctccga | aatgaggagc | 5040 |
| ttgggtttct | gtttcacaa | gtgtgccagg | ccataagcac | accaggaata | tgagagaggg | 5100 |
| gcttaggaag | aaaccagaaa | gagaaacaat | cccatctcaa | ttaaactggg | tgggagctgg | 5160 |
| gcgggagaaa | agcagtgtgt | gggtatctgg | aagctgcattg | tcacctgtct | actgcccctc | 5220 |
| tgcgccctct | acacactggc | aggcgaaggc | gatggaaact | tgctgccaa | ggctcttgtc | 5280 |
| gcctccattg | cttgcccttc | cttgttgccc | gacatgtccc | ctcttgcctc | ctgtcctctc | 5340 |
| ccatgctgcc | taccaccctc | ccctccaaca | agaacttggc | ccaaggtctc | cgttccctgg | 5400 |
| aactccctta | tccctacccc | tactctgtct | tctgttccag | cagctgtctc | ccaagatccc | 5460 |
| ctagaatgac | ctcctctcag | ccctctctct | cacaccccc | aagtccccac | tacctggccc | 5520 |
| ctcccactcc | tctgcttttt | cagccactgc | tgctctcttc | tcttctccct | tacctgtctc | 5580 |
| ccagggtgtgt | catggcctgg | tgcgggaggc | tcttacctcc | ccaagcccca | ctgcttctcc | 5640 |
| tgctgcccgc | ttgcttcgga | ctctggcaga | aacccacact | gctgacacgt | tcctcctggg | 5700 |
| gaattggcaa | gtgattagt | atgagctgtc | agcacagggc | cctaaaactc | cccgaagaag | 5760 |
| ctgtgcccc | tccttagacc | cctgttccag | gccattgggc | tagaagcagc | tcccagagat | 5820 |
| ccatagattc | cccattggcc | aaaaggagaa | taggaaact | ggtccagttg | ggtggatggg | 5880 |
| tgggtggttt | cccttgactc | tacctcagg | aatgaggag | gggagagttc | ccaccacct | 5940 |
| ttcttgatcc | acaccaacaa | caggggccac | tgggaagtct | caaaacagtc | cagtccagaa | 6000 |
| acctcccaa | agtgggtgat | cttggaaagt | gctcttccct | tcttttgacc | cttggttaagc | 6060 |
| cccattggcc | ctcgatgaga | gtaggggaaa | cagggtgccg | gaagccctct | gggcataaac | 6120 |
| cccactgcag | ttaaactaaga | ggtgccactg | gagtagtcag | ggaaggctgg | ggatagaggt | 6180 |
| ggtggcattg | ggtactcctc | ccagcttaac | cagacttggg | tcctcctcag | gtgttggtatg | 6240 |
| tgccagcgcc | tctggccgtg | gcccgt | | | | |

| | | | | | | |
|------------|-------------|-------------|------------|-------------|-------------|------|
| tggggttact | ccctctgtca | cccaggctgg | agtgcagtgg | taccattaca | gctcactgca | 2460 |
| acctctgtct | cctgggttta | agtgatcctc | gtgcctcagc | ctcccaagta | gctgggacta | 2520 |
| tgggcacaag | ctaccatacc | cagctaattt | tttttttttt | tttttttttt | agacggagtc | 2580 |
| tcgctgtcac | ccaggctgga | atgcaatggc | gcaatctcgg | ctcactgcaa | gttctgcctc | 2640 |
| ccgggttcac | gccattctcc | tgcctcagcc | tcccagatag | ctgggactac | aggcgccccg | 2700 |
| caccacaccc | agctaatttt | ttgtattttt | agtagagaca | gggtttcacc | atgtagagca | 2760 |
| ggatgggtct | gatctttctg | cctcgtgatt | cgcctgcctc | ggcctcccaa | agtgtctggga | 2820 |
| ttacaggcat | gagccaccac | gcccggcctt | aatttttgtt | tttaaagaga | cagggttttg | 2880 |
| ccatgtcacc | cagtctgggt | tcaaactcct | agacttaagt | gatctgcctg | cctcgcctcc | 2940 |
| caaagtgttg | ggattacagg | cttaagccac | cctgcctggc | tgaaaaaatg | agaagttttg | 3000 |
| accataatta | atgatcaata | gaatagaaaa | aaggaaggaa | ggaaggaagg | aaggaaggaa | 3060 |
| ggaaggaagg | aaggaaggaa | ggaaggagag | agacaggaag | gaaggaaggg | caaagtaatg | 3120 |
| agacccttct | ctataggatg | aaagctggtc | tctgggtagc | tggttggtgac | cccttgggaat | 3180 |
| ctttgtatct | accccttgct | tctccagatg | ctgcatgttt | gctttttaca | ggggagtggtc | 3240 |
| atccctgacc | tttctcttat | aaatcgcttg | gctgaggttg | gacatgtgat | atcagctggg | 3300 |
| aatctggaag | gttggaagtc | cctccagata | gggactgggg | acagctccaa | cccatgccat | 3360 |
| ttccttgctc | ctcatgcaac | cctccccttc | tctcccacct | cctccttgac | ctgtcttctc | 3420 |
| tcccacccct | caccctctct | ttgcccactg | cttcattcag | ctttgaccac | ctctcctaata | 3480 |
| tcctagatta | gaagtctctg | gaaaaaactg | agagccgcat | tccatccctg | cagaaggatt | 3540 |
| taacacatgt | gtggtctggg | tgttggtgagg | gagggagtag | cgcaagatgg | atattgctag | 3600 |
| agcctgtacc | ctgctctctg | gatgtccccg | tctctgtcct | ggggcgattg | cttctccctc | 3660 |
| ctgaatagtc | aggggagagt | gtcaccttga | cagagggttt | tacagtgtca | ccattgtcac | 3720 |
| caccagaggg | cagcagccag | ccagacctct | gcttctctca | aggtcttgct | tcctggctct | 3780 |
| ctttatcttt | ccaaatcttg | tcccagctgc | ttctggtctc | attcaacccc | aggagcacag | 3840 |
| gtgggagagt | agagaggcac | tgggaagctgt | aggtggtgtc | ctttgccact | gtcttggtga | 3900 |
| agtccccaag | aggttaaacc | cagttcccaa | agccacacca | aagtcttgcc | aagatttcaa | 3960 |
| cctgactctt | ctgtgtgact | gccggacccc | tgagagcaac | agggaggcca | ttcccagatc | 4020 |
| atctgtgaga | cctggctggg | ggtcccagac | cccagctatg | gtatagtaag | ctttgggtcag | 4080 |
| ctccttctct | tttgagggca | tgaggaaggc | aaagctgcag | tcaagcgttc | atgaagcagt | 4140 |
| ctatgcccc | gttaaacagc | gtggctgggt | agttaacctc | tctgagccct | tctcattggc | 4200 |
| tgaattcatg | actgatgagt | agtgaagaaa | tatgagtga | gggtatttgt | aaactatgat | 4260 |
| gtgtcaaaca | catttaaggg | acaatgatga | tactagagaa | aaaacactgg | actcaggctc | 4320 |
| agatgtgggt | ttgagatctg | tctgccattt | acagtgggtg | acttttgagg | aagtcagtta | 4380 |
| acttctctgg | gtctccaata | ccatctgaaa | cctctctaga | gttgtaggca | ctgggcctat | 4440 |
| ttgaggggtt | gtttttgcta | agaccctggg | aatgcctcct | gtagctcagc | agaaggacca | 4500 |
| gggccagggt | ggtattcctg | gtggaagcaa | agtcagctga | ctgggcaccc | tcaaataaac | 4560 |
| ttttgtgggt | gtcaggaacg | tgtgacgacg | gctggaggcc | aacagagtcc | ctacagggtg | 4620 |
| tgctcacggg | aatgcaccga | caatgagtgg | ctgttttcca | gtttctgggc | tccgctgcct | 4680 |
| atctagggtg | agtgggtccc | tccagggggt | tccataggat | agggcctcagc | ccccagtttc | 4740 |
| ccatcacctt | tccatagggc | cttggggagag | gccctatcca | gcccgtttta | ggtttaccct | 4800 |
| cacctctact | ggggcttcat | taattcctag | aagcttccat | cccagggtgtg | gggtcctgat | 4860 |
| gcttttatat | tgcaatttga | aggatcctgg | gccactgaaa | tgcccactgg | atgtagatga | 4920 |
| gaccagaggg | tgactctagg | gatgaggtgg | aagggacagc | ttggttaggg | aggcagatag | 4980 |
| ccaatcgaaa | tcccagctcc | gaaatgagga | gcttgggttt | ctgtttcaca | aggtgtgcca | 5040 |
| ggccataagc | acaccaggaa | tatgagagag | gggcttagga | agaaaccaga | aagagaaaca | 5100 |
| atcccactct | aattaactgg | ggtgggagct | gggcgggaga | aaagcagtgt | gtgggtatct | 5160 |
| ggaagctgca | tgtcacctgc | tcactgcccc | tctgcgcctc | tcacacactg | gcaggcaaaag | 5220 |
| gtgatggaaa | cttgctgccc | agggctcttg | ctgcctccat | tgcttgccctt | tccttggtgc | 5280 |
| cagacatgtc | ccctcttgct | ctctgtcctc | tcccatgctg | cctaccaccc | tcccctccaa | 5340 |
| caagaatctg | gcccagggtc | tccgcttctt | ggaactccct | tatccctacc | cctactctgt | 5400 |
| cttctgtctc | agcagtctgt | ctccaagatc | ccctagaatg | acctcctctc | agccctctcc | 5460 |
| tccacacccc | ccaagtcccc | actacctggc | ccctcccact | cctctgcctt | ttcagccact | 5520 |
| gctgtctctt | tctcttctcc | cttacctgtc | tcccagggtg | gtcatggcct | gggtgcgggag | 5580 |
| gctcttacct | ccccaggccc | cactgcttct | cctgctgccc | gcttgcttcg | gactctggca | 5640 |
| gaaaccccac | ctgctgacac | gttctctctg | gggaattggc | aagtgattag | tgatgagctg | 5700 |
| tcagcacagg | gccctaaaac | tcccagaaga | agctgtgccc | catccctaga | cccctgttca | 5760 |
| gtgccattgg | gctagaagca | gctcccagag | agccatgat | tccccatggc | ccaaaaggag | 5820 |
| aatgaggaaa | ctgggtccagt | tgggtggatg | ggtggttggt | ttcccttgac | tctacctcag | 5880 |
| ggaatgaggg | aggggagagt | tcccaccacc | ctttcttgat | ccacaccaac | aacagggggc | 5940 |
| actggaagtc | tccaaaacag | tccagtcag | aaacctcccc | aaagtgtgta | tccttggaag | 6000 |
| ctgctcttcc | cttcttttga | cccttggtta | gccccattgg | ccctcgatga | gagtagggga | 6060 |

09950062 091201
102750

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|------|
| aacaggtgcc | gagaagccct | ctgggcataa | acccactgc | agttaactaa | gaggtgccac | 6120 |
| tggagtagtc | aggggaaggct | ggggatagag | gtgggtggcat | tgggtactcc | tcccagctta | 6180 |
| accagacttg | ggcctcctc | aggtgttgga | tgtgccagcg | cctctggccg | tggcccgtta | 6240 |
| accagcctct | cccgggcggg | ctcctgccgc | gccccctctc | gcttgcccc | tcctcctcct | 6300 |
| cctcctgctg | ctctccccc | tgctcccagg | acggcaggat | ggccgcgcag | ggcgcgcgcg | 6360 |
| gcttcctcct | gaccttcgac | ttcgacgaga | ctatcggtga | cgaaaacagc | gacgattcga | 6420 |
| tcgtgcgcgc | cgcgcggggc | cagcggctcc | cggagagcct | gcgagccacc | taccgcgagg | 6480 |
| gcttctacaa | cgagtacatg | cagcgcgtct | tcaagtacct | ggcgagcag | ggcgtgcggc | 6540 |
| cgcggggacct | gagcgccatc | tacgaagcca | tccctttgtc | gccaggcatg | agcgacctgc | 6600 |
| tgcagtttgt | ggcaaaacag | ggcgccctgt | tcgaggtgat | tctcatctcc | gatgccaca | 6660 |
| cctttggcgt | ggagagctcg | ctgcgcgcgc | ccggccacca | cagcctgttc | cgccgcctcc | 6720 |
| tcagcaacc | gtcggggccg | gatgcgcggg | gactgctggc | tctgcggccg | ttccacacac | 6780 |
| acagctgcgc | gcgctgcccc | gccaacatgt | gcaagcacia | ggtgctcagc | gactacctgc | 6840 |
| gcgagcgggc | ccacgacggc | gtgcacttcg | agcgctctt | ctacgtgggc | gacggcgcca | 6900 |
| acgacttctg | ccccatgggg | ctgctggcgg | gcggcgacgt | ggccttcccg | cgccgcggct | 6960 |
| accccatgca | ccgcctcatt | caggaggccc | agaaggccga | gcccagctcg | ttccgcgcca | 7020 |
| gcgtgggtgcc | ctgggaaacg | gctgcagatg | tgcgcctcca | cctgcaacag | gtgctgaagt | 7080 |
| cgtgctgagt | ctggccgcct | gcaggggggt | acccgggcca | acggcggagg | gggcggggaa | 7140 |
| gggagattcg | gcaaaagacag | ctttactact | ccctt | | | 7175 |

<210> 12494
<211> 136
<212> DNA
<213> Homo sapiens

| | |
|-------------|--|
| <400> 12494 | |
| tttttttttt | tttttttgag atggagtggt gctctgtcgc ccaggctgga gtgcagcatg 60 |
| atcttggtc | actgcaacct ctgcctcccc ggttcaagtg attctcctgc ctcagcctcc 120 |
| cgagtagctg | ggatta 136 |

<210> 12495
<211> 496
<212> DNA
<213> Homo sapiens

| | |
|-------------|---|
| <400> 12495 | |
| tccagtctac | tgtggaggga acccaggatc ctgaaattct cctggccgca agaactcccc 60 |
| acagaggcag | aagaggggtct ccacctatgg cccaggcct ttgcgatctt gcttcaccca 120 |
| ccgcgacccc | acactatttc tgtgctgtcc acactctctt gcctcccgac ccccgcactc 180 |
| ccttctagca | cccccaaagg aaaagccaga ggaacaatcg cctcctgggtg gtggtacgag 240 |
| gtagcgcacc | gtccggctcg ggtccggaca gccagtaacc tcgcagagag tgacgggtgtc 300 |
| tccttgcatc | ccagcctcgt ctatgcagca agagaccagg gacttcacca aagtcaccct 360 |
| cgcgggctgg | gccttccacg catccccccc acccccatg gaacagaaaag ccatgttttt 420 |
| aagcagaacc | agcgaacccc aagccccctc ttctctgtgt gttttacaac tataaaggag 480 |
| gtgaaggggg | aagaaa 496 |

<210> 12496
<211> 46
<212> DNA
<213> Homo sapiens

| | |
|-------------|--|
| <400> 12496 | |
| gtctccctat | gttgctcagg ctggtctcga actccggggc tcaagc 46 |

<210> 12497
<211> 496
<212> DNA

0995008-094201

<213> Homo sapiens

<400> 12497

| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|-----|
| tccagtctac | tgtggaggga | acccaggatc | ctgaaattct | cctggccgca | agaactcccc | 60 |
| acagaggcag | aagaggggtct | ccacctatgg | ccccaggcct | ttgcgatctt | gcttcaccca | 120 |
| ccgcgacccc | acactatttc | tgtgctgtcc | acactctctt | gcctcccgac | ccccgcactc | 180 |
| ccttctagca | cccccaaagg | aaaagccaga | ggaacaatcg | cctcctggtg | gtggtacgag | 240 |
| gtagcgcacc | gtccggctcg | ggtccggaca | gccagtaacc | tcgcagagag | tgacggtgtc | 300 |
| tccttgcac | ccagcctcgt | ctatgcagca | agagaccagg | gacttcacca | aagtcaccct | 360 |
| cgcgggctgg | gccttccacg | catccccccc | accccccatg | gaacagaaag | ccatgttttt | 420 |
| aagcagaacc | agcgaaaccc | aagcccctcc | ttcctctggt | gtttttacaac | tataaaggag | 480 |
| gtgaaggggg | aagaaa | | | | | 496 |

<210> 12498

<211> 165

<212> DNA

<213> Homo sapiens

<400> 12498

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| ggggggggttg | gtttaacaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 60 |
| aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 120 |
| aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | taaaa | | 165 |

<210> 12499

<211> 143

<212> DNA

<213> Homo sapiens

<400> 12499

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aagaaaagaa | aaaaaaaaaa | aaaaaaaaaa | agaaaaaaca | aaaaaaaaaa | aaaaaaaaaa | 60 |
| aaaaaaaaaa | taaaaaaaaa | aaaaaaaaaa | aagagaaaca | aaaaaaaaaa | aatagaaaaa | 120 |
| aaaaaaaaaa | aacaaaaaag | gag | | | | 143 |

<210> 12500

<211> 151

<212> DNA

<213> Homo sapiens

<400> 12500

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| aaaaaaaaaa | aaaaaaaaaa | gaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaacaa | 60 |
| aaaaaaacaaa | aaaaaaaaaa | aaaaaaaaaa | taataaaaaa | aaaaagagaa | aaaaataaaa | 120 |
| ataaagaaat | aaataaaaaa | aaaaaaaaaa | a | | | 151 |

<210> 12501

<211> 202

<212> DNA

<213> Homo sapiens

<400> 12501

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aaaaaaaaga | aaaaaaaaaa | aaaaaataaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 60 |
| aaaaaaaaaa | aaacaaaaaa | taaaaaaaaa | aagaaaaaaa | aaaaaataaa | aaaaaaaata | 120 |
| aaaaaaaaca | aaaaaaacaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | ataaacaaaa | 180 |
| aaaaaataaa | acaaaaaaaa | aa | | | | 202 |

<210> 12502

<211> 125

<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (33)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (90)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (91)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (116)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (117)
<223> n equals a,t,g, or c

| | |
|--|-----|
| <400> 12502 | |
| gttgtggaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa | 60 |
| naaaaaaaaaa aaaaaaaaaa aaaaaaaaaa naaaaaaaaaa aaaaaaaaaa aaaaaannaaa | 120 |
| aaaaaa | 125 |

<210> 12503
<211> 126
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (10)
<223> n equals a,t,g, or c

<220>
<221> SITE

09050083 091001

<222> (14)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (20)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (95)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (107)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (108)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (118)
<223> n equals a,t,g, or c

<400> 12503
gccaaaaann aaanaaaan aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaanaaaaaa aaaaaannan aaaaaanaa 120
aaaaaa 126

<210> 12504
<211> 195
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (3)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (30)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (32)
<223> n equals a,t,g, or c

<220>
<221> SITE

102150 "E300560"

<222> (37)
<223> n equals a,t,g, or c

<400> 12504
gcncccaata cgcaaaccgc ctctccccgn gngttgncca attcattaat gcagctggca 60
cgacagggttt cccgactgga aagcgggcag tgagcgcaac gcaattaatg tgagttagct 120
cactcattag gcaccccagg ctttacactt tatgcttccg gctcgtatgt tgtgtggaat 180
tgtgaacgga taaca 195

<210> 12505
<211> 77
<212> DNA
<213> Homo sapiens

<400> 12505
aaataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
ataaaaaaaaa aaaaaaa 77

<210> 12506
<211> 152
<212> DNA
<213> Homo sapiens

<400> 12506
aaaaaaataa aaaaaaaaaa aaaaaaaaaa aaaataaaac aaaaaaaaaa tataaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaaaaa aaaaaaaaaat 120
ataaaaaaaaa aaaaaaaaaa aaaattaaag ag 152

<210> 12507
<211> 165
<212> DNA
<213> Homo sapiens

<400> 12507
ggggggggttg gtttaacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaa 165

<210> 12508
<211> 143
<212> DNA
<213> Homo sapiens

<400> 12508
aagaaaagaa aaaaaaaaaa aaaaaaaaaa agaaaaaaca aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa taaaaaaaaa aaaaaaaaaa aagagaaaca aaaaaaaaaa aatagaaaaa 120
aaaaaaaaaa acaaaaaaag gag 143

<210> 12509
<211> 151
<212> DNA
<213> Homo sapiens

<400> 12509
aaaaaaaaaa aaaaaaaaaa gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacia 60
aaaaaacaaa aaaaaaaaaa aaaaaaaaaa taaataaaaa aaaaagagaa aaaaataaaa 120

ataaagaaat aaataaaaaa aaaaaaaaaa a

151

<210> 12510
<211> 125
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (33)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (90)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (91)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (116)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (117)
<223> n equals a,t,g, or c

<400> 12510
gttgtgga aa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaana aaaaaaaaaa 60
naaaaaaaaa aaaaaaaaaa aaaaaaaaaa naaaaaaaaa aaaaaaaaaa aaaaaannaa 120
aaaaaa 125

<210> 12511
<211> 126
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (32)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (37)
<223> n equals a,t,g, or c

<400> 12512
gcncccaata cgcaaaccgc ctctccccgn gngttgncca attcattaat gcagctggca 60
cgacagggtt cccgactgga aagcgggcag tgagcgcaac gcaattaatg tgagtttagct 120
cactcattag gcaccccagg ctttacactt tatgtttccg gctcgtatgt tgtgtggaat 180
tgtgaacgga taaca 195

<210> 12513
<211> 152
<212> DNA
<213> Homo sapiens

<400> 12513
aaaaaaaaataa aaaaaaaaaa aaaaaaaaaa aaaataaaac aaaaaaaaaa tataaaaaaa 60
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaaaa aaaaaaaaat 120
ataaaaaaaaaa aaaaaaaaaa aaaattaaag ag 152

<210> 12514
<211> 165
<212> DNA
<213> Homo sapiens

<400> 12514
ggggggggttg gtttaacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaa 165

<210> 12515
<211> 143
<212> DNA
<213> Homo sapiens

<400> 12515
aagaaaagaa aaaaaaaaaa aaaaaaaaaa agaaaaaaca aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaaaa taaaaaaaaa aaaaaaaaaa aagagaaaca aaaaaaaaaa aatagaaaaa 120
aaaaaaaaaaaa acaaaaaaag gag 143

<210> 12516
<211> 151
<212> DNA
<213> Homo sapiens

<400> 12516
aaaaaaaaaaaa aaaaaaaaaa gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacaa 60
aaaaaacaaa aaaaaaaaaa aaaaaaaaaa taaataaaaa aaaaagagaa aaaaataaaa 120
ataaagaaat aaataaaaaa aaaaaaaaaa a 151

<210> 12517
<211> 125

| 2000-2001 | | 2001-2002 | | 2002-2003 | | 2003-2004 | | 2004-2005 | | 2005-2006 | | 2006-2007 | | 2007-2008 | | 2008-2009 | | 2009-2010 | | 2010-2011 | | 2011-2012 | | 2012-2013 | | 2013-2014 | | 2014-2015 | | 2015-2016 | | 2016-2017 | | 2017-2018 | | 2018-2019 | | 2019-2020 | | 2020-2021 | | 2021-2022 | | 2022-2023 | | 2023-2024 | | 2024-2025 | | 2025-2026 | | 2026-2027 | | 2027-2028 | | 2028-2029 | | 2029-2030 | | 2030-2031 | | 2031-2032 | | 2032-2033 | | 2033-2034 | | 2034-2035 | | 2035-2036 | | 2036-2037 | | 2037-2038 | | 2038-2039 | | 2039-2040 | | 2040-2041 | | 2041-2042 | | 2042-2043 | | 2043-2044 | | 2044-2045 | | 2045-2046 | | 2046-2047 | | 2047-2048 | | 2048-2049 | | 2049-2050 | | 2050-2051 | | 2051-2052 | | 2052-2053 | | 2053-2054 | | 2054-2055 | | 2055-2056 | | 2056-2057 | | 2057-2058 | | 2058-2059 | | 2059-2060 | | 2060-2061 | | 2061-2062 | | 2062-2063 | | 2063-2064 | | 2064-2065 | | 2065-2066 | | 2066-2067 | | 2067-2068 | | 2068-2069 | | 2069-2070 | | 2070-2071 | | 2071-2072 | | 2072-2073 | | 2073-2074 | | 2074-2075 | | 2075-2076 | | 2076-2077 | | 2077-2078 | | 2078-2079 | | 2079-2080 | | 2080-2081 | | 2081-2082 | | 2082-2083 | | 2083-2084 | | 2084-2085 | | 2085-2086 | | 2086-2087 | | 2087-2088 | | 2088-2089 | | 2089-2090 | | 2090-2091 | | 2091-2092 | | 2092-2093 | | 2093-2094 | | 2094-2095 | | 2095-2096 | | 2096-2097 | | 2097-2098 | | 2098-2099 | | 2099-2100 | | 2100-2101 | | 2101-2102 | | 2102-2103 | | 2103-2104 | | 2104-2105 | | 2105-2106 | | 2106-2107 | | 2107-2108 | | 2108-2109 | | 2109-2110 | | 2110-2111 | | 2111-2112 | | 2112-2113 | | 2113-2114 | | 2114-2115 | | 2115-2116 | | 2116-2117 | | 2117-2118 | | 2118-2119 | | 2119-2120 | | 2120-2121 | | 2121-2122 | | 2122-2123 | | 2123-2124 | | 2124-2125 | | 2125-2126 | | 2126-2127 | | 2127-2128 | | 2128-2129 | | 2129-2130 | | 2130-2131 | | 2131-2132 | | 2132-2133 | | 2133-2134 | | 2134-2135 | | 2135-2136 | | 2136-2137 | | 2137-2138 | | 2138-2139 | | 2139-2140 | | 2140-2141 | | 2141-2142 | | 2142-2143 | | 2143-2144 | | 2144-2145 | | 2145-2146 | | 2146-2147 | | 2147-2148 | | 2148-2149 | | 2149-2150 | | 2150-2151 | | 2151-2152 | | 2152-2153 | | 2153-2154 | | 2154-2155 | | 2155-2156 | | 2156-2157 | | 2157-2158 | | 2158-2159 | | 2159-2160 | | 2160-2161 | | 2161-2162 | | 2162-2163 | | 2163-2164 | | 2164-2165 | | 2165-2166 | | 2166-2167 | | 2167-2168 | | 2168-2169 | | 2169-2170 | | 2170-2171 | | 2171-2172 | | 2172-2173 | | 2173-2174 | | 2174-2175 | | 2175-2176 | | 2176-2177 | | 2177-2178 | | 2178-2179 | | 2179-2180 | | 2180-2181 | | 2181-2182 | | 2182-2183 | | 2183-2184 | | 2184-2185 | | 2185-2186 | | 2186-2187 | | 2187-2188 | | 2188-2189 | | 2189-2190 | | 2190-2191 | | 2191-2192 | | 2192-2193 | | 2193-2194 | | 2194-2195 | | 2195-2196 | | 2196-2197 | | 2197-2198 | | 2198-2199 | | 2199-2200 | | 2200-2201 | | 2201-2202 | | 2202-2203 | | 2203-2204 | | 2204-2205 | | 2205-2206 | | 2206-2207 | | 2207-2208 | | 2208-2209 | | 2209-2210 | | 2210-2211 | | 2211-2212 | | 2212-2213 | | 2213-2214 | | 2214-2215 | | 2215-2216 | | 2216-2217 | | 2217-2218 | | 2218-2219 | | 2219-2220 | | 2220-2221 | | 2221-2222 | | 2222-2223 | | 2223-2224 | | 2224-2225 | | 2225-2226 | | 2226-2227 | |
|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|
|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|

095003-09160

<222> (14)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (20)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (95)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (107)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (108)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (118)
<223> n equals a,t,g, or c

<400> 12518
gccaaaaann aaanaaaan aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaanaaaaaa aaaaaannan aaaaaanaa 120
aaaaaa 126

<210> 12519
<211> 195
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (3)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (30)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (32)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (37)
<223> n equals a,t,g, or c

<400> 12519
gcncccaata cgcaaaccgc ctctccccgn gngttgncca attcattaat gcagctggca 60
cgacaggttt cccgactgga aagcgggcag tgagcgcaac gcaattaatg tgagttagct 120
cactcattag gcaccccagg ctttacactt tatgcttccg gctcgtatgt tgtgtggaat 180
tgtgaacgga taaca 195

<210> 12520
<211> 4493
<212> DNA
<213> Homo sapiens

<400> 12520
aggaggcaga gggggcgctca ggccgcggga gaggaggcca tgggcgcgcg cggggcgctg 60
ctgctggcgc tgctgctggc tccggctgga ctcaggaagc cgggtgagct cggggcgctg 120
ctggcgggat ggggaggcgg gggagcggtg gggaggacgg gaggtggagg ccgcggggag 180
tcacttcttg tctccgcag agtcgcagga ggccgcgcgc ttatcaggta gggcgcccag 240
gacgcgcgat tcccgccagg gccgttgggc cgaggtggac gggggcggt gaggggtag 300
aggggggcct ttactgctct ctgcggcccg ccccggggat cgagaactct gtggcgctgg 360
aaagtaacta acggacgctg gagggggatg ggccggccct gcagagcacg tgggaggatc 420
tccagtgtca cctacttctt gctgcacaca cgcgagggga ccctgggtgg gcaaaaacgt 480
gctttcccgg acgggggtga aggggagaaa gggagaggtc gggcttgggg ggctgcctcc 540
cgcggtcag cagttcctct gaccatccga ggaccatgag gccgacgggt catcacgtcg 600
cgcatcgtgg gtggagagga cgccgaactc gggcggtggc cgtggcaggg gagcctgcgc 660
ctgtgggatt cccacgtatg cggagtggag ctgctcagcc accgctgggc actcacggcg 720
gcgactgct ttgaaacgtg agtgggggtg cgaacggagg ggtgcgggga cgggcaggaa 780
cagggtgga gggagtggca ccgaacttta cctctggtct gatgccagac ttgggcgtga 840
aagttgtgag tggatgcggc ctggtgttct cctgagcccc aggcgtgtgct gcagccggtt 900
acacccactc cagttccctt tgggtctcct ggagggaacc ctgttcagggt tattccagaa 960
tgttcttcca gaacatttcc acacactttt gggatttctc tccctttttc tttcaaccca 1020
aagttcacca ctgaccatcc caccctcctc cccctcctg gtggacggtg cggtagagt 1080
tggggcactg agccaaggcc agcaccoccg ggccgctgtg tggactccat cctgccaatc 1140
ccacattggc gtggtgcac tccccattcc tccctgggct gcatgggggt gcccctggag 1200
gccttggctc aatgcaaggc tccttgggac agctctggga ggtgacaaga cccaccctt 1260
ctgctgcagc agcaggtcct aggactttgg ttgtggctcg tctgggctcc ttcatttctg 1320
caggggaccc tgggtgttag caagtagcag caacaccaca gtttccctc ctgcactgga 1380
ccccagttgt gctcaggtag ccagccctcc gtccagggcc cctgactgct ctcttctctt 1440
ctgccagcta tagtgacctt agtgatccct ccgggtggat ggtccagttt ggccagctga 1500
cttccatgcc atccttcttg agcctgcagg cctactacac ccgttacttc gtatcgaata 1560
tctatctgag ccctcgctac ctggggaatt caccctatga cattgccttg gtgaagctgt 1620
ctgcacctgt cacctacact aaacacatcc agcccatctg tctccaggcc tccacatttg 1680
agtttgagaa ccggacagac tgctgggtga ctggctgggg gtacatcaaa gaggatgagg 1740
gtgaggctgg ggacaggcgg gtcaggaggg aactgtcttt gttcacctgt tcccctgcat 1800
aggcacaata gccccctgct tggcttgggg gtgcaggcta tgccctctt gcttgagtc 1860
tctcctcacc tgccagggca gggaccaaac acccagttct ctcccttcca ggggctgtgg 1920
gggcccagaag gagagtgtga gagggaggcc agtttggcgc aggcctgtgg gtggtgcgg 1980
ggtggagggg ttctggaggg ctgtggcgaca taaacctcat acttgattt attcctgcat 2040
ctttccacct cccccagtg caccaatgc cccaggcatc aggcctctgg gctgcctctc 2100
catgcctccc acacccaccc tagctctggc cgattctcct gcagcactga gcccattcct 2160
ctccccagaa acttccaagc catgctcaac cgcagctccc acggaaaccc ctctgggggt 2220
tctctgggtg ggctgcccct ggcacctgcg tgcccccaa cacacatgcc ctgaaagaag 2280
tgggcccagc atccggagga gccccggcag cccagactg ggcgtgttcc ctgtatcagg 2340
aatcccttcc cctgtctccc ctgtctggc cgtccctgca tcatccaca acagtagtaa 2400
caataacaaa cgtggttctt tgagcacacg ctgtgtgcct ggcactgttc tagccatggg 2460
ggcccagcag tgagccaggc gcggcctctc ctctgctgg agctcaccta ggaatgaagt 2520
tggtaacgtt cttataccca tcttacagat gagaaaactg agagggttat ggaaattgcc 2580
aagaactagt aaatggagaa gtcaggggcc cttgccttag agagggttaag ggatgtcccc 2640
aagtcacacc ccggcagttg ggagtgggga actcagcact ggagccgcct ccctctggag 2700

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|------|
| gagggatcct | ttgccttccc | tgagaaggac | ccttgctgca | aacacgagt | gatatgagcc | 2760 |
| aggggcacgg | ccaggctgcc | tctgccaccc | tctctcccca | gcccagggt | gacaggtcac | 2820 |
| accaacccca | ggctgtgcct | caattcacag | tgccggggag | gcaggggaca | ggcacttctg | 2880 |
| gagccccctg | cctgggtgtg | acctttgtct | tgccctgcgc | gggctgggag | gccttgggca | 2940 |
| aaggtgttca | tcttacagtg | cctcagtttc | ctccccgtg | aaatagggga | atgatggtgc | 3000 |
| cacatcagag | gctagttccc | aggttggttag | tccccagggg | ttaggagagg | ccccgctgac | 3060 |
| gggaagcgct | gcctgcaggt | tgggtctcat | tgtcttttgt | catcctctgc | aggacaaggt | 3120 |
| gctggctggc | actctgaggg | aggaattgga | cagggtgtgg | ctcctgtcag | gctctgaaac | 3180 |
| ttccccagtg | ccttgctggg | ggtcagcggg | gcaatatccc | cctgactctc | cttatctggg | 3240 |
| agtaggtcct | gatgactgcc | gcctcccagg | ggtgctgggg | gtccctaaga | gtgctgcaac | 3300 |
| aagcttgtgt | ccaggcctgg | aaagcgccca | gctgctactg | aggccagggg | tgcagccagg | 3360 |
| ctgccccctc | cccaggctct | gctttggatg | ctcatctgaa | caccgtctca | gctgccttcg | 3420 |
| ccccctccct | ggctcctttt | ggctgaggaa | tctctccatg | gctgcaggca | gggccattgt | 3480 |
| tgccatttcta | cagatagggg | aagtgcggct | gggggagctc | tgacagcctg | tccctccccg | 3540 |
| gggccttctg | tgatgctgct | gagggcctct | gttgtgctgg | ggtctggggt | ggagctgggg | 3600 |
| gtaatggaga | tgaacctgcc | aggcacagtg | ggtgccccag | ggccccacc | cccgagcct | 3660 |
| atgccatccc | tccatagagg | ggcctcaggt | tgctgtctct | ctccttccca | ctatcgtcg | 3720 |
| cacagcactg | ccatctcccc | acaccctcca | ggaagttcag | gtcgccatca | taaacaactc | 3780 |
| tatgtgcaac | cacctcttcc | tcaagtacag | tttccgcaag | gacatctttg | gagacatggt | 3840 |
| ttgtgctggc | aatgcccagg | gcgggaagga | tgctgtcttc | gtgagtgtcc | ttgccaccac | 3900 |
| tcccagccca | ggaagcctc | ctgtgtccct | gtgccttatt | tgaccctcat | gccaaccccg | 3960 |
| ggaggtggag | actggtgccc | cactctgcag | atgcagaaac | ggaggcttgg | ctgctggcag | 4020 |
| ggggaggagg | aggatgtgca | cccagttctc | ccagccccat | agcccttccc | actctcagcc | 4080 |
| cctccccctg | cccactcact | ctgccccagg | ctgacctcag | ccccgctgct | ccccagggtg | 4140 |
| actcaggtgg | acccttgccc | tgtacaaga | atggactgtg | gtatcagatt | ggagtcgtga | 4200 |
| gctggggagt | gggctgtggt | cggcccaatc | ggcccgtgt | ctacaccaat | atcagccacc | 4260 |
| actttgagt | gatccagaag | ctgatggccc | agagtggcat | gtcccagcca | gaccctcct | 4320 |
| ggcgcctact | cttttttccc | cttctctggg | ctctcccact | cctggggccg | gtctgagcct | 4380 |
| acctgagccc | atgcagcctg | gggccactgc | caagtcaggc | cctggttctc | ttctgtcttg | 4440 |
| tttggttaata | aacacattcc | agttgatgcc | ttgcagggca | ttcttcaaaa | gca | 4493 |

<210> 12521
 <211> 139
 <212> DNA
 <213> Homo sapiens

| | | |
|-------------|---|-----|
| <400> 12521 | | |
| gtgctggcgc | gcgcctgttaa ccccagctac ttggggaggct gaggcaggag aatcgcttga 60 | |
| accagaggag | tggaggttgc agtgagctgg gatcacgccca atgcactcca gcctgggcga 120 | |
| caagagcgaa | actccatct | 139 |

<210> 12522
 <211> 2112
 <212> DNA
 <213> Homo sapiens

| | |
|-------------|---|
| <400> 12522 | |
| attttttaaaa | gatattctttt gtgtagaagt aacccaggaa tgccagcatt tgttttgata 60 |
| gtctcattcc | aatagtagtt acttttaaat gaagaatgtt cttaatttac aaaatattat 120 |
| gtatgtatct | aagttatgaa tattgcagat atgtaaatat gtgtatatgt gtgttgattt 180 |
| taatttgat | cttcacagat tttattatca gttatgtttt gaatttttac ctttgaggaa 240 |
| aacatactac | ttaaactctc cagtgtagt atagcaaatt atctttatat aaattttatt 300 |
| cagattattc | aaagtaataa aagattttta attattttta ttaaattaaa tttatcagta 360 |
| taaataatta | agatcattaa ccttattttaa ttaaatttat taattttgat tatagaaaaa 420 |
| tgcattttct | tcttaaatag attctttaca cttaaagctg aagtgttatt ttgctacttg 480 |
| tatgtatct | agatactttg tttattaatc taatacgtta gtaataaaaag gactacttta 540 |
| caattattgc | ctgtatattt tttcatgtgt agggaaatga agaagattat gggacctgtt 600 |
| ctagtctgt | acaatatata ccagtttaca aattacacaa tgaaaaggga ggaaactcag 660 |
| aaaagcgtaa | gcttgctcag gtaagtaagg ttattttaccc ttcatctccc cacattctca 720 |

| | | | | | | |
|--------------|-------------|-------------|-------------|-------------|-------------|------|
| aattatataa | ttccagtaaa | ttattttagga | acaattttgga | tccactaatt | ttttatctta | 780 |
| tatgaaaacc | tgcaagtattg | gtcaagggga | ggagtttagtg | gaacctggga | aggctacaag | 840 |
| gggattgaga | gtcaaatgtt | tcagatatcg | gtctctacat | gctttgttag | cccatgccct | 900 |
| catagatctc | atagtccagt | gaaggaaaag | acaattgaat | gtgtgattct | tatagagtgt | 960 |
| gaatagcttg | atgataaact | ggaaatcata | ggattccttt | actacaaaaa | taaaatcaat | 1020 |
| cttatacatg | ggtattttggc | cattaaaata | gtctatagaa | attaaaatct | gaactactat | 1080 |
| aagtctatcc | tattctaaag | ttagattatt | ttatttgcta | taaatagtta | aagcttcttt | 1140 |
| ttatatgctg | atgctactta | aaatattgtt | tcaagtgact | gagtgttcag | aatcatagct | 1200 |
| ataagtgttc | ctggttttttt | tttcataagt | acatttatga | aggctctaac | taaacaaaat | 1260 |
| tggtatatac | aaaattgtat | cttaagtggc | cttagaaaac | tagcttcaaa | aaagaattct | 1320 |
| tgagtggact | gtagctacaa | aattacagaa | ctggaagtgg | ctgcaaagct | tcattttataa | 1380 |
| cagttgccaa | ggttttgcaga | tgagaaaagt | gatagctaga | atggtcacaa | cacttgccat | 1440 |
| aagtctcata | actgatcagt | ggcagaagga | ggcgaaaagc | catctctgat | gctcagttag | 1500 |
| ctttcctgga | tagccaggca | ccacagaagt | atacatggcc | ataagggtgct | tccagggtct | 1560 |
| ttgtctttga | gcccattttg | tgctgtctga | ccagaatacc | tgaggctggg | taattttgtaa | 1620 |
| agaacagaag | tttattttctc | acagttcggg | aggctggaaa | gtccaagatc | aaggcactgg | 1680 |
| caccttatga | ggcccttctt | gctgtgtcat | cccatggtgg | aaggcagaaa | ggcaagagag | 1740 |
| atgagggggc | caaactcacc | ctttttataac | agcactaatc | ccaccaaga | gggtggaacc | 1800 |
| ctcatggccc | aatcacctct | taaaagtccc | acttcttaat | accattacaa | tggcaattaa | 1860 |
| atttcaacat | gagattttga | gaggacaaaa | ttcaaaccgt | aacaacagtc | tttaagaatg | 1920 |
| ggaaaggata | gtgaagctgt | actgaaactc | tagtcctttg | taaaaaaaaa | aaaaaaaaaa | 1980 |
| aaaaaaaaatcc | cattaattca | gtcattcatc | aacactatat | gccacacact | tttctagata | 2040 |
| ccaggtgtat | ataaaaaggaa | aacacaaaaa | ttctctgctt | tcattgggact | gtttttgtaa | 2100 |
| catactgagt | at | | | | | 2112 |

<210> 12523

<211> 2112

<212> DNA

<213> Homo sapiens

<400> 12523

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| atttttaaaa | gatatctttt | gtgtagaagt | aaccaggaa | tgccagcatt | tgttttgata | 60 |
| gtctcattcc | aatagtagtt | actttaaaat | gaagaatgtt | cttaatttac | aaaatattat | 120 |
| gtatgtattt | aagttatgaa | tattgcagat | atgtaaatat | gtgtatatgt | gtgttgattt | 180 |
| taatttgtat | cttcacagat | tttattatca | gttatgtttt | gaatttttac | ctttggagaa | 240 |
| aacatactac | ttaaattctt | cagtgtagt | atagcaaatt | atctttatat | aaattttatt | 300 |
| cagattattc | aaagtaata | aagattttta | attattttta | ttaaattaaa | tttatcagta | 360 |
| taaataatta | agatcattaa | ccttatttta | ttaaatttat | taattttgat | tatagaaaaa | 420 |
| tgcattttct | tcttaaatag | attctttaca | cttaaagctg | aagtgttatt | ttgctacttg | 480 |
| tatgtatata | agatactttg | tttattaatc | taatacgtta | gtaataaaa | gagtacttta | 540 |
| caattattgc | ctgtatattt | tttcatgtgt | aggaaaatga | agaagattat | gggacctgtt | 600 |
| ctagtctctg | acaatataca | ccagttttaca | aattacacaa | tgaaaaggga | ggaaactcag | 660 |
| aaaagcgtaa | gcttgctcag | gtaagtaagg | ttattttacc | ttcattcccc | cacatttctca | 720 |
| aattatataa | ttccagtaaa | ttattttagga | acaattttgga | tccactaatt | ttttatctta | 780 |
| tatgaaaacc | tgcaagtattg | gtcaagggga | ggagtttagtg | gaacctggga | aggctacaag | 840 |
| gggattgaga | gtcaaatgtt | tcagatatcg | gtctctacat | gctttgttag | cccatgccct | 900 |
| catagatctc | atagtccagt | gaaggaaaag | acaattgaat | gtgtgattct | tatagagtgt | 960 |
| gaatagcttg | atgataaact | ggaaatcata | ggattccttt | actacaaaaa | taaaatcaat | 1020 |
| cttatacatg | ggtattttggc | cattaaaata | gtctatagaa | attaaaatct | gaactactat | 1080 |
| aagtctatcc | tattctaaag | ttagattatt | ttatttgcta | taaatagtta | aagcttcttt | 1140 |
| ttatatgctg | atgctactta | aaatattgtt | tcaagtgact | gagtgttcag | aatcatagct | 1200 |
| ataagtgttc | ctggttttttt | tttcataagt | acatttatga | aggctctaac | taaacaaaat | 1260 |
| tggtatatac | aaaattgtat | cttaagtggc | cttagaaaac | tagcttcaaa | aaagaattct | 1320 |
| tgagtggact | gtagctacaa | aattacagaa | ctggaagtgg | ctgcaaagct | tcattttataa | 1380 |
| cagttgccaa | ggttttgcaga | tgagaaaagt | gatagctaga | atggtcacaa | cacttgccat | 1440 |
| aagtctcata | actgatcagt | ggcagaagga | ggcgaaaagc | atctctgatg | ctcagttagc | 1500 |
| tttcctggat | agccaggcac | cacagaagta | tacatggcca | taagggtgctt | ccaggggtctt | 1560 |
| tgtctttgag | cccattttgt | gctgctgtac | cagaatacct | gaggctgggt | aattttgtaa | 1620 |
| gaacagaagt | ttattttctca | cagttcggga | ggctggaaag | tccaagatca | aggcactggc | 1680 |
| accttatgag | gcccttcttg | ctgtgtcatc | ccatggtgga | aggcagaaa | gcaagagaga | 1740 |

| | | | | | | |
|--------------|------------|------------|------------|------------|------------|------|
| tgagggggcc | aaactcacc | ttttataaca | gcactaatcc | cacccaagag | ggtggaaacc | 1800 |
| ctcatggccc | aatcacctct | taaaagtc | acttctta | accattacaa | tggcaattaa | 1860 |
| atttcaacat | gagattttga | gaggacaaaa | ttcaaaccgt | aacaacagtc | tttaagaatg | 1920 |
| ggaaaggata | gtgaagctgt | actgaaactc | tagtcctttg | taaaaaaaa | aaaaaaaaaa | 1980 |
| aaaaaaaaatcc | cattaattca | gtcattcatc | aacactatat | gccacacact | tttctagata | 2040 |
| ccaggtatat | ataaaaggaa | aacacaaaaa | ttctctgctt | tcatgggact | gtttttgtaa | 2100 |
| catactgagt | at | | | | | 2112 |

<210> 12524
 <211> 2111
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|--------------|------------|-------------|-------------|-------------|-------------|------|
| <400> 12524 | | | | | | |
| atttttaaaa | gatatctttt | gtgtagaagt | aacccaggaa | tgccagcatt | tgttttgata | 60 |
| gtctcattcc | aatagtagtt | acttttaaat | gaagaatggt | cttaattttac | aaaatattat | 120 |
| gtatgtat | aagttatgaa | tattgcagat | atgtaaata | gtgtatatgt | gtgttgattt | 180 |
| taatttgtat | cttcacagat | tttattatca | gttatgtttt | gaattttttac | ctttggagaa | 240 |
| aacatactac | ttaaatcttc | cagtgtagtg | atagcaaatt | atctttatat | aaattttatt | 300 |
| cagattattc | aaagtaata | aagattttta | attattttta | ttaaattaaa | tttatcagta | 360 |
| taaataatta | agatcattaa | ccttatttta | ttaaatttat | taattttgat | tatagaaaaa | 420 |
| tgcattttct | tcttaaatag | attctttaca | cttaaagctg | aagtgttatt | ttgctacttg | 480 |
| tatgtatata | agatactttg | tttattaatc | taatacgtta | gtaataaaa | gagtacttta | 540 |
| caattattgc | ctgtatattt | tttcatgtgt | aggaaaatga | agaagattat | gggacctgtt | 600 |
| ctagtctctg | acaatataca | ccagttttaca | aattacacaa | tgaaaaggga | ggaaactcag | 660 |
| aaaagcgtaa | gcttgctcag | gtaagtaagg | ttattttacc | ttcattcccc | cacattctca | 720 |
| aattatataa | ttccagtaaa | ttatttagga | acaatttgga | tccactaatt | ttttatctta | 780 |
| tatgaaaacc | tgcaagtatt | gtcaaggggg | ggagttagtg | gaacctggga | aggctacaag | 840 |
| gggattgaga | gtcaaatggt | tcagatatcg | gtctctacat | gctttgttag | cccatgccct | 900 |
| catagatctc | atagtcagtg | gaaggaaaa | acaattgaat | gtgtgattct | tatagagtgt | 960 |
| gaatagcttg | atgataaa | ggaaatcata | ggattccttt | actacaaaa | taaaatcaat | 1020 |
| cttatacatg | ggtatttggc | cattaaaata | gtctatagaa | attaaaatct | gaactactat | 1080 |
| aagtcctatc | tattctaaag | ttagattatt | ttatttgcta | taaatagtta | aagcttcttt | 1140 |
| ttatatgctg | atgctactta | aaatattggt | tcaagtgact | gagtgttcag | aatcatagct | 1200 |
| ataagtgttc | ctggtttttt | tttcataagt | acattttatga | aggctctaac | taaacaaaa | 1260 |
| tggtatatac | aaaattgtat | cttaagtggc | cttagaaaac | tagcttcaaa | aaagaattct | 1320 |
| tgagtggact | gtagctacaa | aattacagaa | ctggaagtgg | ctgcaaagct | tcatttataa | 1380 |
| cagttgccaa | ggtttgcaga | tgagaaagtt | gatagctaga | atggtcacaa | cacttgccat | 1440 |
| aagtctcata | actgatcagt | ggcagaagga | ggcgaaaagc | catctctgat | gctcagttag | 1500 |
| ctttcctgga | tagccaggca | ccacagaagt | atacatggcc | ataagggtgt | tccaggggtct | 1560 |
| ttgtctttga | gcccattttg | tgctgctgta | ccagaatacc | tgaggctggg | taatttgtaa | 1620 |
| agaacagaag | tttatttctc | acagttcggg | aggctggaaa | gtccaagatc | aaggcactgg | 1680 |
| caccttatga | ggcccttctt | gctgtgtcat | cccatggtgg | aaggcagaaa | ggcaagagag | 1740 |
| atgagggggc | caaactcacc | ctttttataac | agcactaatc | ccacccaaga | gggtggaacc | 1800 |
| ctcatggccc | aatcacctct | taaaagtc | acttctta | accattacaa | tggcaattaa | 1860 |
| atttcaacat | gagattttga | gaggacaaaa | ttcaaaccgt | aacaacagtc | tttaagaatg | 1920 |
| ggaaaggata | gtgaagctgt | actgaaactc | tagtcctttg | taaaaaaaa | aaaaaaaaaa | 1980 |
| aaaaaaaaatcc | cattaattca | gtcattcatc | aacactatat | gccacacact | tttctagata | 2040 |
| ccaggtgttt | ataaaaggaa | aacacaaaaa | ttctctgctt | tcatgggact | gtttttgtaac | 2100 |
| atactgagta | t | | | | | 2111 |

<210> 12525
 <211> 192
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12525 | | | | | | |
| ttttctctg | agacggagtc | ttgctctgtc | ccccaggctg | gagtgcagtg | gtgcgatctc | 60 |
| ggctcactgc | aagctccgcc | tcctgggttc | acgccattct | cctgcctcag | cctcccaagc | 120 |

<400> 12530

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gtgccaatgt | tggccagtcg | cgggtggttc | cgctgtaat | cccagcactt | tgggaggctg | 60 |
| aggtgggttg | atcacgaggt | caggagattg | agaccatcct | ggctaacacg | gtgaaacccc | 120 |
| atctctacta | aaaatacaaa | aaaattagcc | gggcatgggtg | gcagacacct | gtagtcccag | 180 |
| ctactcggga | ggctgaggca | ggagaatggt | gtgaaccccg | gaggcggagc | ttgcaatgag | 240 |
| ctgagattgt | gccactgcat | tccagcctgg | gcgatagagc | gagactccat | ctcaaataaa | 300 |
| taaataaata | aatagtgcc | atgttatgac | cagaggcagc | aaggcctgac | acagcatcca | 360 |
| aggccagtct | gggcacctgc | tcttttgcac | attaatataa | taagctttaa | caagaaatac | 420 |
| atgttaactt | tctcaggatc | aaaggattca | gaaggctatt | ttgctctcat | tttatcctta | 480 |
| ggcttcagca | gaagaaacac | ttcctataaa | tctcgcccaa | acaggaaagg | taagtggcct | 540 |
| aaaatttttc | tagtattttc | aaaatgacct | agttacaata | ggaaatttct | tcttgacta | 600 |
| ttgtcactaa | tcccagactca | atatccttta | aaggacaaag | atgcatgcat | aagtaaaaat | 660 |
| atgacaggtc | acaatcacgc | cgggggtggtc | ctggggcgag | gcccaggttc | cctgcacgca | 720 |
| ccggcacaag | cacgcacact | gtgatgggga | ggacgtttac | gtaccatgtc | cacaccactc | 780 |
| cagacttggt | gagcgccagt | aggaactgag | ctccacactc | aatctggcac | acccctgtc | 840 |
| catttagtct | ctcaatgttc | tggggaatgt | tgcagccttc | acttccgccc | cggcccaatt | 900 |
| ttccaaagtc | accatcaccc | caggaaaata | ccaaacctag | gtttaaaaat | aggggaaggga | 960 |
| aggggaaggga | gagaagaaag | gaaagataaa | gaaagcccaa | cctccttcca | aaatgtcatg | 1020 |
| agaattctga | gcacatatgg | tccttggcat | gaccacatga | cctgcagagc | ccctgttata | 1080 |
| gaactcattt | ttatattttc | cttagtataa | cagttaatgt | aatatgtcat | ttttgttaat | 1140 |
| agtgtctttt | tgtcatttta | ctttttaaaa | gattgtattg | aaatatacat | acaggaaagt | 1200 |
| gcatctatca | taagtgtgca | aattgatgaa | ttctaaaatc | tttattgtac | ctgttttagca | 1260 |
| cctagattga | caactgaacat | aactaacaac | cagaaatctc | cgtgtactcc | cttctctgtaa | 1320 |
| ctacccttgc | gcccgaacca | atcactctct | tctaacagca | taactttgtg | tgactagctt | 1380 |
| ttttaatgta | aaagaatgaa | atctacagca | tgtattcatt | tgcactctggc | ttctgccacc | 1440 |
| caacattata | tttgtgggat | tcatttgtac | agttgcatat | tagtttgcag | atccctcact | 1500 |
| ctcgttttcta | tatggtatta | tattgcataa | acgtaccaca | ctttatctaa | ctactgttaa | 1560 |
| atatttctgc | atcttctact | tggggggcgt | ttcaaatagt | gctgctatga | acattcttgt | 1620 |
| aaatgtcttt | tgggtgaacat | atgcaacaca | tatatgcgtt | gttgttgggt | ccaggagggg | 1680 |
| gcatttcttg | gtcataaaca | atgcatgtgt | tcaggtttag | tatggtataa | tgccaaacag | 1740 |
| gtttccaaag | tgtttgtgcc | actttacata | cccgccatta | ttgaaaaaga | gttctgtttg | 1800 |
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atattgcaat | gtggttttaa | tttgcactct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccacttgg | aaatgtgatt | taaattcata | taaagatata | gtagcaaaac | 1980 |
| acatagtaag | ttacttttcat | atccagaaag | tttagataga | atgatttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagtcca | tgaatattga | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caatattttt | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttcagggt | attttgtatg | gttccagcag | 2220 |
| tcagttaggt | tgccattggt | tgggaagcaca | catccacgta | tctgcaccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgc | tagttatcac | taactttgcc | 2340 |
| agtagaaatg | tactcccaat | ttcccacaga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacagggtt | tgaattctgt | tagaataagt | gtttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtaataactt | ttattttaaaa | agtgaacaaa | agcttttccct | ctcccttacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggccccag | gccaaaatca | taaacgcttt | 2580 |
| caattaacta | ataataattg | ctggcatgtt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggtcactga | agcccacttt | tgagacaaag | actatttctc | 2700 |
| cccaaaaagt | caagggaagt | ataaaaaagt | aaattagtga | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaag | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatgtt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggctcttga | tgactctgtt | 2940 |
| gtggaaattc | aatttgttca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggtccttggc | aattcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccttgag | gagaagcatc | aggggtgtccg | actacgtggg | tttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactcctg | tgggcacag | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaaattcat | tctgtatttt | gccacaaaag | ttttaagct | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccatctt | ggagttttca | gtcccacatg | 3420 |
| ggagataaag | ggttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctctgc | 3480 |
| ctttttcatt | actatcaaac | tcaaataaat | gtcttgggtc | ttacattaca | ttcattcttc | 3540 |

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|------|
| aaccattgtg | gtctggcttc | cacttccttc | acttcacca | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | atctctctac | aacatttata | ctggctcgta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atTTTTccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aatttagttct | attaaacata | ttaattgtat | tgtttaattt | atcagggtttt | 3900 |
| tgacacagag | aatTTTgttt | gcaagtaata | aaaatTTTat | ctccaatttt | caataattac | 3960 |
| acccattatt | tctgTTTTat | gtctcattgc | attggtgaga | tcttgagaa | taatTTtaga | 4020 |
| acagtagtgg | gtatTTTTct | ctTTTaatgg | gtgtgtctag | tatttcatat | attgTTgctt | 4080 |
| atagaacact | attcaacca | gacatgtcaa | gactagtgtg | ctctcaaacc | attagtattt | 4140 |
| atattatttc | tttccagcta | catttgtggg | atgtaaaaga | ccatttccag | gaatatggaa | 4200 |
| ctgTTTTact | aggTggagg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | aggTTaaatg | 4320 |
| tataactctt | atcagcagga | ggTgaaagaa | tatattctta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggccggggcac | ggTggctcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcggggcga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaacccccg | tctctacca | aaatacaaaa | aattatctgg | gcatggTggc | 4560 |
| gggGgcctgt | agtcccagct | actcggggagg | ctgaggcagg | agaatggcgt | gaaccagga | 4620 |
| ggtggagctt | gcagtgaacc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactccgtct | caaacaaca | aa | | | | 4702 |

<210> 12531
<211> 4721
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|------------|-------------|------|
| <400> 12531 | | | | | | |
| gtgccaatgt | tggccagtcg | cggtgggttca | cgctgtaat | cccagcactt | tgggaggctg | 60 |
| aggTgggtgg | atcacgaggt | caggagattg | agaccatcct | ggctaacacg | gtgaaacccc | 120 |
| atctctacta | aaaatacaaa | aaaattagcc | gggcatggTg | gcagacacct | gtagtcccag | 180 |
| ctactcgTga | ggctgaggca | ggagaatggT | gtgaacccccg | gaggcgaggc | ttgcaatgag | 240 |
| ctgagattgt | gccactgcat | tccagcctgg | gcgatagagc | gagactccat | ctcaaataaa | 300 |
| taaataaata | aatagtGCCa | atgttatgac | cagaggcagc | aaggcctgac | acagcatcca | 360 |
| aggccagtct | gggcacctgc | tctTTTgcac | attaatataa | taagctTTaa | caagaaatac | 420 |
| atgttaactt | tctcaggatc | aaaggattca | gaaggctatt | ttgctctcat | tttatcctta | 480 |
| ggcttcagca | gaagaaacac | tccctataaa | tctcgcccaa | acaggaaagg | taagtggcct | 540 |
| aaaatttttc | tagtattttc | aaaatgacct | agttacaata | ggaaatttct | tcttgTacta | 600 |
| ttgtcactaa | tcccgaacta | atatacctta | aaggacaag | atgcatgcat | aagtaaaaaa | 660 |
| atgacaggtc | acaatcacgc | cggggTggTc | ctggggcgag | gcccaggttc | cctgcacgca | 720 |
| ccggcacaag | cacgcacact | gtgatgggga | ggacgtttac | gtaccatgtc | cacaccactc | 780 |
| cagactTggT | gagcgccagt | aggaactgag | ctccacactc | aatctggcac | acccctgtc | 840 |
| catttagtct | ctcaatgttc | tggggaatgt | tgcagccttc | acttccgcc | cggcccaatt | 900 |
| ttccaaagtc | accatcaccc | caggaaaata | ccaaacctag | gtttaaaaat | agggaaggga | 960 |
| agggaaggga | gagaagaaag | gaaagataaa | gaaagcccaa | cctccttcca | aatgtcatg | 1020 |
| agaatcttga | gcacatatgg | tccTtggcat | gaccacatga | cctgcagagc | ccctgttata | 1080 |
| gaactcattt | ttatatTTtc | cttagtataa | cagttaatgt | aatatgtcat | ttttgttaat | 1140 |
| agtgtctttt | tgtcatttta | ctttttaaaa | gattgtattg | aaatatacat | acaggaaagt | 1200 |
| gcatctatca | taagtgtgca | aattgatgaa | ttctaaaatc | tttattgtac | ctgttttagca | 1260 |
| cctagattga | cactgaacat | aactaacaac | cagaaatctc | cgtgtactcc | cttctgttaa | 1320 |
| ctaccctgtc | gcccgaacca | atcactctct | tctaacagca | taactttgtg | tgactagctt | 1380 |
| ttttaatgta | aaagaatgaa | atctacagca | tgtattcatt | tgcactgtgg | ttctgccacc | 1440 |
| caacattata | tttgtgggat | tcatttgtac | agttgcata | tagtttgcag | atccctcact | 1500 |
| ctcgTTtcta | tatggTatta | tattgcataa | acgtaccaca | ctttatctaa | ctactgttaa | 1560 |
| atatttTgtc | atcttctact | tgggggcaat | ttcaaatagt | gctgctatga | acattcttgt | 1620 |
| aaatgtcttt | tggTgaacat | atgcaacaca | tatatgcgtt | gttgttgggt | cccaggaggg | 1680 |
| gcattccTgg | gtcataaaca | atgcatagtg | tcaggTttag | tatggTataa | tgccaaacag | 1740 |
| gtttccaaag | tgtttgtgcc | actttacata | cccgccatta | ttgaaaaaga | gttctgtttg | 1800 |
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atattgcaat | gtggTtttaa | tttgcactct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccacttgg | aaatgtgatt | taaattcata | taaagatata | gtagcaaaac | 1980 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| acatagtaag | ttacttttcat | atccagaaag | tttagataga | atgattttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagtcca | tgaatattga | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caatattttt | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttccaggt | attttgtatg | gttccagcag | 2220 |
| tcagttaggt | tgccattggt | tggaagcaca | catccacgta | tctgcaccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgca | tagttatcac | taactttgcc | 2340 |
| agtagaaatg | tactcccaat | ttcccacgga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacagggtt | tgaattctgt | tagaatagtt | gtttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtaataact | ttatttataa | agtgaacaaa | agcttttctc | ctcccctacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggccccag | gccaaaatca | taaacgcctt | 2580 |
| caattaacta | ataataattg | ctggcatggt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggtcactga | agcccacttt | tgagacaaa | actatttctc | 2700 |
| ccccaaaagt | caagggaagt | ataaaaagt | aaattagtg | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaa | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatggt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggtcttgca | tgactctggt | 2940 |
| gtggaaattc | aatttggtca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggtccttggc | aatttcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccttgtag | gagaagcatc | aggggtgtccg | actacgtggg | tttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactcctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaaattcat | tctgtatttt | gcccgcagg | ttttaagct | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccactct | ggagtgttca | gtcccacatg | 3420 |
| ggagataaag | ggttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctcgtc | 3480 |
| ctttttcatt | actatcaaac | tcaaataaat | gtcttggtct | ttacattaca | ttcattcttc | 3540 |
| aaccattgtg | gtctggcttc | cacttccttc | acttcaccaa | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | atctctctac | aacatttatc | ctggctcgta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tcacatactg | atttttccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aattagttct | attaaacata | tttaattgtat | tgtttaattt | atcagggttt | 3900 |
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattattt | tctgttttat | gtctcattgc | attggtgaga | tcttgagaaa | taattttaga | 4020 |
| acagtagtgg | gtatttttcta | cttttaattg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | attcaaccaa | gacatgtcaa | gactagttgt | ctctcaaacc | attagtattt | 4140 |
| atattattcc | tttccagcta | catttgtggg | atgtaaaaga | ccatttccag | gaatatggaa | 4200 |
| ctgttttact | aggtggaggg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttgcca | gatttgctta | aggttaaattg | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatatcttta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggccggggcac | ggtgggtcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcggggcga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaacccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgcctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccagga | 4620 |
| ggtggagctt | gcagtgaacc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactccgtct | caaacaacaa | aacaaacaaa | taaataaata | a | | 4721 |

<210> 12532

<211> 5977

<212> DNA

<213> Homo sapiens

<400> 12532

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|-----|
| aacagtaatg | gtaattttgt | tttcataaat | aaaatttttaa | attgaatatc | tacaagccgg | 60 |
| tcatagcata | tgtcttctcca | agcagaagag | agtgtaacac | ttgtcaggca | ctagctctgt | 120 |
| ctctaaaatg | aggcatgggt | gcctcctcac | cagtttagcaa | tttcctaaag | caaagtcttg | 180 |
| ttaatacctt | gcagtaggag | catcttcaag | aataacaatc | ttttggccgg | gtgcggtggc | 240 |
| tcacgcctgt | aatcccagca | ctttgggagg | ccgaggcagg | tggatcacga | ggtcaggaga | 300 |
| tcgagaccac | ggtgaaaccc | cgtctctact | aaaaatacaa | aaaattagct | gggcgtgggtg | 360 |
| gcgggcgcct | gtagtcaccg | ctactcggga | ggctgaggca | ggagaatggc | atgaaccag | 420 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gaggcagaac | ttgcagtgag | ccgagatcgc | gccactgcac | tccagcctgg | gcgacagagc | 480 |
| gagactctgt | ctcaaaaaaa | aaaaaaaaaa | aaaaggataa | caatctttcc | acacactttt | 540 |
| cacgtggact | tcagagtggg | aacgcctctt | ttctgaggac | cccgccecca | acccctgtctg | 600 |
| ctgagtaggc | agatacacca | gcggggcaaaa | cggatgggtc | cggcctcat | ggttcttcaa | 660 |
| gcagtaagac | tcggctgagt | tcatacaacag | ctgtgatttc | aacaggacga | gggccatgtc | 720 |
| gtgacccccca | cgtcccccaa | gtcaggatgg | cacgccaccc | ccaggccacc | tgcagcctta | 780 |
| cctgccccga | gtccgtgacc | gccaggcagt | gcagggcccc | gacagccaca | tgcacgatct | 840 |
| tcttccctct | cagcccttcc | accacctaaca | gtttccacac | gtgcacgtca | gagccctggc | 900 |
| gcaacctgaa | gtaatcccc | tttccctga | gaaggaggcc | cgtggtggag | tgttacaata | 960 |
| tagttgtggt | ctgacaatgc | tatacaagaa | gacactcatt | gtctcacatc | tttcacagcc | 1020 |
| agctcaatga | catcacacac | agcacccaag | gtcttcgaac | ttgtattcaa | aatcatacac | 1080 |
| cattaattca | aattaactta | ttaagtacgc | tgggaaaaac | cttaatacct | taatacatgt | 1140 |
| tctacaatat | ttaagttact | gttgtagggt | ttcatataga | ctgaaaataa | gacacattac | 1200 |
| tgcaaacacc | tatccaaagt | cctatctggt | atacatcttt | ctcagagtgc | caatgtcggc | 1260 |
| cagtagcagt | ggttcacgcc | tgtaatccca | gcactttggg | aggccgaggc | gggtggatca | 1320 |
| caaggtcagg | agatcgagac | catcctggct | aacatggtga | aaccctatct | ctactaaaaa | 1380 |
| cacaaaaaaa | ttagccgggg | atggtggcag | acgcctgtag | tcccagctac | tcgggaggct | 1440 |
| gaggcaggag | aatggcgtga | acccggggaga | cggagcttgc | agtgcagctga | gattgtgcca | 1500 |
| ctgcattcca | gcctggggcga | cagagcgaga | ctccatctca | aataaataaa | taaataaata | 1560 |
| aataaatagt | gccaatgtta | tgaccagagg | cagcaaggcc | tgacacagca | tccaaggcca | 1620 |
| gtctgggcac | ctgctcattt | gcacattaat | ataataagct | tttacaagaa | atacatgtta | 1680 |
| actttctcag | gatcaaagga | ttcagaaggc | tattttgctc | tcattttatc | cttaggcttc | 1740 |
| agcagaagaa | acacttccta | taaatctcgc | ccaaacagga | aaggtaagt | gcctaaaatt | 1800 |
| tttctagtat | tttcaaaatg | acccagttac | aataggaaat | ttcttcttgt | actattgtca | 1860 |
| ctaataccga | ctcaatatcc | tttaaaggac | aaagatgcat | gcataagtaa | aaatatgaca | 1920 |
| ggtcacaaatc | acgcgggggt | ggtcctgggg | cgaggcccaa | gttccctgca | cgcgctcggca | 1980 |
| caagcacgca | cactgtgacg | gggaggacgt | ttacgtacca | tgtccacacc | actccagact | 2040 |
| tggtgagcgc | cagtaggaac | tgagctccac | actcaatctg | gcacaccccc | tgtccattta | 2100 |
| gtctctcaat | gttctgggga | atgttgacg | cttcaattcc | gccccggccc | aatttttcaa | 2160 |
| agtcaccatc | accccaggaa | aataccaaac | ctaggtttaa | aaatagggaa | gggaagggaa | 2220 |
| gggaagggaa | gggagagaag | aaaggaaaga | taaagaaagc | ccaacctcct | tccaaaatgt | 2280 |
| catgagaatc | ttgagcacat | atggtccttg | gcatgaccac | atgacctgca | gagccccctgt | 2340 |
| tatagaactc | atTTTTtatat | tttcccttagt | ataacagtta | atataatatg | tcatttttgt | 2400 |
| taatagtgtc | tttttgtcat | tttacttttt | aaaagatttt | attgaaatat | acatacagga | 2460 |
| aagtgcattc | atcataagt | tgcaaatgta | tgaattctaa | aatctttatt | gtacctgttt | 2520 |
| agcacataga | ttgacactga | acataactaa | caaccagaaa | tctccgtgta | ctcccttccct | 2580 |
| gtaactaccc | ctgcgcccga | ccaaatcaac | ctcttctaac | agcataactt | tgtgtgacta | 2640 |
| gcttttttaa | tgtaaaagaa | tgaaatctac | agcatgtatt | catattgcac | tggtcttctgc | 2700 |
| cacccaacat | tatatattgtg | ggattcattt | gtacagttgc | atattagttt | gcagatccct | 2760 |
| cactctcatt | tctatatggt | atttatattgc | ataaacgtac | cacactttat | ccaactactg | 2820 |
| ttaaatattt | gtgcattttc | tacttggggg | tgattttcaa | tagtgctgct | atgaacattc | 2880 |
| ttgtaaatgt | cttttggtga | acatatgcaa | cacatatatg | cgttggtgtt | ggttcccagg | 2940 |
| aggggcattc | ctgggtcata | aacaatgcgt | gtgttcagggt | ttagtacagt | ataatgccaa | 3000 |
| acaggtttcc | aaagtgtttg | tgccacttta | catacctgcc | attattgaaa | aagagtctctg | 3060 |
| tttgctccac | attgtcacca | atacttgata | ttttctgttt | tttttttctt | ttaaaccgta | 3120 |
| ctagtgggtg | tgcaagtgtg | gttttaattt | gcactcttcc | tgtgacaacc | 3180 | |
| ttgattactg | taagccactt | ggaaatgtga | tttaaattca | tataaagata | tagtagcaaa | 3240 |
| acgcatacta | ggttactttc | gtatccagaa | agtttagata | gaatgatttc | tatgtaagct | 3300 |
| tttactgtgt | agtctgagtc | catgaatatt | gattacaaaa | aacacatctg | taggtgaggt | 3360 |
| acaatacctc | acttataatt | ccaaattcat | gttggtgttag | ctcaatatatt | ttcaaataat | 3420 |
| ttttgcatgc | aatttttcacc | ttctttctga | gtagtttcag | gtatttttga | tggttccagc | 3480 |
| agtcagttag | gttgccattg | tttggaagca | cacatccacg | tatctgcacc | atgatgatat | 3540 |
| gacacgcccc | taccccccat | ttcacatttt | gtcagaagtg | catagttatc | actaactttg | 3600 |
| ccagttagaaa | tgtaactcca | atttcccacg | gacttatctt | gaataatctc | tccactgaag | 3660 |
| cataacaggt | ttgaattctt | gttagaatag | ttgtttttac | tatcttttaa | ttttatacaa | 3720 |
| atttcaaagt | tacgtaatac | ttttatttaa | aaagtgaaac | aaagcttttt | ctctccttta | 3780 |
| cccacatggt | agtcagcag | aggggggaaag | cattggcccc | aggccaaaat | cataaacgct | 3840 |
| ttcaattaac | taataataat | tgctggcatg | ttgccattaa | atattcttgt | ctcattatct | 3900 |
| ctgggttgctt | tatcaaacc | ataggtcact | gaagcccact | tttgagacaa | agactatttc | 3960 |
| tcccccaaaa | gtcaagggaa | atataaaaaa | tgaatttagt | gattaagaat | agaagtcaat | 4020 |
| taatacaatc | atTTTgtctt | aattatttaa | agtccagttt | tttccctcca | gcaaacctga | 4080 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| aaatacacta | tctctcagct | atcagaatta | tattgagatc | tactcacatt | tatgatgatg | 4140 |
| ttcagagatt | ctcattggga | aggaaaaggc | acacgctgcg | gcggctcttg | atgactctgt | 4200 |
| tgttgtggaa | attcaatttg | ttcatttgtt | tttgggctct | ctgggtgggtc | agggctgggc | 4260 |
| tctgggtcct | tggcaattcc | tcagggtccc | agcactccaa | agccaagctc | acctcctcat | 4320 |
| cacacaccc | acaggagaag | cattaggggtg | tccgactacg | tgggtttcat | agctgtggaa | 4380 |
| aagccaaagg | ggagactcct | caagaaaaggc | ggtgaagact | gtgaagagcg | ggtcaggaag | 4440 |
| atgagcacag | cactgtctact | ctgtgtggca | cagggacagc | atgttcccag | ccagcgccac | 4500 |
| cttgtttaat | acatgggaac | tcacttgaat | tcattctgtg | ttttgccgcg | aaagttttaa | 4560 |
| agctttcatc | cacagtcagg | aattaaactt | ataccaatga | gagcctcaca | cattcaagga | 4620 |
| tgtactaagc | actacaggcc | tcacagaaac | agagatccca | tcttggagtt | ttcagtagca | 4680 |
| catgggggat | aaagggtttt | gaacatgaaa | tgacaaaaac | aacagcaaga | agaaaattct | 4740 |
| tgtccttttt | cattactatc | agactcaaat | aaatgtcttg | gctcttacat | tacattcatt | 4800 |
| cttcaaccat | tgttgtcttg | cttccacttc | cttcaactta | ccaacatggc | tctgccaaag | 4860 |
| gaagcccggtg | atctcttaggc | catacattta | attgatcttt | ctacaacatt | tatcctgggt | 4920 |
| gttaagccct | ccttacaaca | tctctctctc | tttgttttta | tagctccatc | tctctgtctt | 4980 |
| ctttaacttg | ataatgcata | cttgattttt | ctatttggtg | tttcataaac | caattaatat | 5040 |
| acagataaaa | tgactgtata | tcaaacatg | tttgtataga | aaaaatggat | tttggatgcc | 5100 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | gtcagggttt | 5160 |
| tgacagaatt | ttgtttacaa | gtaataaaaa | ttttatctcc | aattttcaat | aattacaccc | 5220 |
| attatttctg | ttttatgtct | cattgcattg | atgagatctt | gcagaataat | tttaaaacag | 5280 |
| tagtgggtat | ttctgtcttt | taatgggtat | gtctagtatt | tcatatattg | ttgcttatag | 5340 |
| aacactattc | aaaccaagaca | tgtcaagact | agttgtctct | caaaccatta | gtattttatat | 5400 |
| tattcctttc | cagctacact | tgtaggatgt | aaagaccat | ttccaggaat | atggaactgt | 5460 |
| tttactaggt | ggagggtata | tataaccata | taatagtcac | agaaactaca | ttaaactca | 5520 |
| cataaatcaa | agcataaatg | acatagaatc | ttggcagatt | tgtttaaggt | taaatgtata | 5580 |
| actcttatca | gcaggagggtg | aaagaatata | ttcttagata | cttggcacat | ttagaaaata | 5640 |
| taatctaata | ttctttttta | agaataggcc | gggcacggtg | gtcacacct | gtaatcccag | 5700 |
| cactttggga | ggccaaggcg | ggcggatcac | gagggtcagga | gatcgagacc | atcctggcta | 5760 |
| acacgggtga | accgcgtctc | tactaaaaat | acaaaaaatt | agctgggcgc | ggtggcgggc | 5820 |
| acctgtagtc | ccagctactc | aggaggctga | ggcaggagaa | cggcatgaac | ccgggagggtg | 5880 |
| gagcttgtag | tgagccgaga | tcgcgccact | gcactccagc | ctgggcgaaa | gagcgagact | 5940 |
| ctgtctcaaa | aaaaaaaaaa | aaaaagaata | aataaaa | | | 5977 |

```
<210> 12533
<211> 327
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-----|
| <400> 12533 | | | | | | |
| acgtgcacgt | cagagcgggtg | gcccaacctg | aagtaatccc | cctttcccct | gagaggaggc | 60 |
| ccgtggtgga | gtgttacaat | acggttatgg | tcttaccatg | cgatacaaga | agacactcat | 120 |
| tgtctcacat | ctttcacagc | cagctcaatg | acatcacaca | cagcacccaa | ggtccttcgaa | 180 |
| cttgtattca | aaatcataca | ccattaattc | aaattaactt | attaagtcag | ctgggaaaaa | 240 |
| ctctaatacc | ttaatacatg | ttctacaata | tttaagttac | tgttgtaggc | tttcatatag | 300 |
| actgaaaata | agacacacta | ctgcaaaa | | | | 327 |

```
<210> 12534
<211> 327
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12534 | | | | | | |
| acgtgcacgt | cagagcgggtg | gcccaacctg | aagtaatccc | cctttccct | gagaggaggc | 60 |
| ccgtggtgga | gtgttacaat | acggttatgg | tcttaccatg | cgatacaaga | agacactcat | 120 |
| tgtctcacat | ctttcacagc | cagctcaatg | acatcacaca | cagcacccaa | ggtcttcgaa | 180 |
| cttgtattca | aaatcataca | ccattaattc | aaattaactt | attaagtcag | ctgggaaaaa | 240 |
| ctctaataatc | ttaatacatg | ttctacaata | tttaagttac | tgttgtaggt | tttcatatag | 300 |
| actgaaaata | agacacacta | ctgcaaa | | | | 327 |

<210> 12535
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 12535
 ctcttagaag tttacccaag agaatttcaa gtggatgtcc atacacaaac ttgtatggaa 60
 atgtccatta gcaatttcac ttgcatagtc aaaaactgga aacagcccaa acattcatca 120
 acagaaaaat ggatgaacaa attgcatttg tttatcttaa gatactattc aacaatttaa 180
 aagaataaac tattgatata tgcaacgt 208

<210> 12536
 <211> 4702
 <212> DNA
 <213> Homo sapiens

<400> 12536
 gtgccaatgt tggccagtcg cgggtggttca cgcctgtaat cccagcactt tgggaggctg 60
 aggtgggtgg atcacgaggt caggagattg agaccatcct ggctaacacg gtgaaacccc 120
 atctctacta aaaatacaaa aaaattagcc gggcatgggt gcagacacct gtagtcccag 180
 ctactcggga ggctgaggca ggagaatggt gtgaaccccg gaggcggagc ttgcaatgag 240
 ctgagattgt gccactgcat tccagcctgg gcgtagagac gagactccat ctcaaataaa 300
 taaataaata aatagtgcc aatgttatgac cagaggcagc aaggcctgac acagcatcca 360
 aggccagtct gggcacctgc tcttttgcac attaatataa taagctttta caagaaatac 420
 atgttaactt tctcaggatc aaaggattca gaaggctatt ttgctctcat tttatcctta 480
 ggcttcagca gaagaaacac ttcctataaa tctcgcccaa acaggaaagg taagtggcct 540
 aaaatttttc tagtattttc aaaatgacct agttacaata ggaaatttct tcttgacta 600
 ttgtcactaa tcccagactca atatccttta aaggacaaag atgcatgcat aagtaaaaaa 660
 atgacaggtc acaatcacgc cgggggtggtc ctggggcgag gcccaagttc cctgcacgca 720
 ccggcacaag cagcacact gtgatgggga ggacgtttac gtaccatgtc cacaccactc 780
 cagacttggt gagcgccagt aggaactgag ctccacactc aatctggcac acccctgtc 840
 catttagtct ctcaatgttc tggggaatgt tgcagccttc acttccgccc cggcccaatt 900
 ttccaaagtc accatcaccc caggaaaata ccaaacctag gtttaaaaaa agggaaggga 960
 agggaaggga gagaagaaag gaaagataaa gaaagcccaa cctccttcca aaatgtcatg 1020
 agaactttga gcacatatgg tccttggcat gaccacatga cctgcagagc ccctgttata 1080
 gaactcattt ttatattttc cttagtataa cagttaatgt aatatgtcat ttttgttaat 1140
 agtgtctttt tgtcattttt ctttttaaaa gattgtattg aaatatacat acaggaaagt 1200
 gcatctatca taagtgtgca aattgatgaa ttctaaaatc tttattgtac ctgttttagca 1260
 cctagattga cactgaacat aactaacaac cagaaatctc cgtgtactcc ctctctgtaa 1320
 ctacccctgc gcccgaccaa atcactctct tctaacagca taactttgtg tgactagctt 1380
 ttttaattga aaagaatgaa atctacagca tgtattcatt tgcactctggc ttctgccacc 1440
 caacattata tttgtgggat tcattttgtac agttgcatat tagtttgcag atccctcact 1500
 ctcgtttcta tatggtatta tattgcataa acgtaccaca ctttatctaa ctactgttaa 1560
 atatttgtgc atcttctact tgggggcatg ttcaaatagt gctgctatga acattcttgt 1620
 aaatgtcttt tgggtgaacat atgcaacaca tatatgcgtt gttgttggtt ccaggaggg 1680
 gcattcctgg gtcataaaca atgcatgtgt tcaggtttag tatggtataa tgccaaacag 1740
 gtttccaaag tgtttgtgcc actttacata cccgccatta ttgaaaaaga gttctgtttg 1800
 ctccacattt tcaccaatac ttgatatttt gttttttttt cttttaaacg gtactagtgg 1860
 gtgtgcagtg atattgcaat gtggttttaa tttgcatctt ccttggtgaca aattaacctt 1920
 gattactgta agccacttgg aaatgtgatt taaattcata taaagatata gtagcaaac 1980
 acatagtaag ttactttcat atccagaaag tttagataga atgatttcta tgaagcttt 2040
 tactgtgtag tctgagtcca tgaatattga ttacaaaaaa cacatctgta ggtgagttac 2100
 aatacctcac ttataattca aaattcatgt tgtgttagct caatattttt caaataattt 2160
 ttgcatgcaa ttttcacctt cttctcaggt agtttcaggt attttgtatg gttccagcag 2220
 tcagttaggt tgccattggt tgggaagcaca catccacgta tctgcacat gatgataga 2280
 cagcaccata ccccccattt cacattttgt cagaagtgca tagttatcac taactttgcc 2340
 agtagaaatg tactcccaat tccccacaga cttatcttga ataactcttc cactgaagca 2400
 taacagggtt tgaattctgt tagaatagtt gtttttacta tcttttaatt ttatacaaat 2460
 ttcaaagtta cgtaataactt ttatttaaaa agtgaaacaa agcttttcct ctcccttacc 2520

| | | | | | | |
|-------------|------------|------------|------------|-------------|-------------|------|
| cacatgttag | cccagcagag | ggggaaagca | ttggcccag | gccaaaatca | taaagcgttt | 2580 |
| caattaacta | ataataattg | ctggcatgtt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggtcactga | agcccacttt | tgagacaaag | actattttctc | 2700 |
| ccccaaaagt | caagggaaat | ataaaaagtg | aaattagtg | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaag | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatgtt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggctcttgca | tgactctgtt | 2940 |
| gtggaaattc | aatttgttca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggtccttggc | aattcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccctgcag | gagagacatc | aggggtgccg | actacgtggg | tttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactcctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaaattcat | tctgtatttt | gcccacaaag | ttttaaagct | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccatctt | ggagttttca | gtcccacatg | 3420 |
| ggagataaag | ggttttgaa | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctcgtc | 3480 |
| ctttttcatt | actatcaaac | tcaaaaat | gtcttggctc | ttacattaca | ttcattcttc | 3540 |
| aaccatttgt | gtctggcttc | cacttctctc | acttcacca | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | atctctctac | aacatttatc | ctggctgtta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atttttccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | atcaggtttt | 3900 |
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattattt | tctgtttttt | gtctcattgc | attggtgaga | tcttgcagaa | taatttttaga | 4020 |
| acagtagtgg | gtattttcta | cttttaattg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | atccaacca | gacatgtcaa | gactagttgt | ctctcaaacc | attagatttt | 4140 |
| atattattcc | tttccagcta | catctgtggg | atgtaaaaga | ccattttccag | gaatatggaa | 4200 |
| ctgttttact | agggtggagg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | agggttaaag | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatattctta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggccgggcac | ggtggctcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcgggcgga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaaaccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccagga | 4620 |
| ggtggagctt | gcagtgagcc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactcgtct | caacaacaca | aa | | | | 4702 |

```
<210> 12537
<211> 4721
<212> DNA
<213> Homo sapiens
```

| | | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|--|-----|
| <400> | 12537 | | | | | | |
| gtgccaatgt | tggccagtcg | cgggtggttca | cgctgtaat | cccagcactt | tgggaggctg | | 60 |
| aggtgggtgg | atcacgaggt | caggagattg | agaccatcct | ggctaacacg | gtgaaacccc | | 120 |
| atctctacta | aaaatacaaa | aaaattagcc | gggcatggtg | gcagacacct | gtagtcccag | | 180 |
| ctactcggga | ggctgaggca | ggagaatggt | gtgaaccccg | gaggcgggagc | ttgcaatgag | | 240 |
| ctgagattgt | gccactgcat | tccagcctgg | gcatagagc | gagactccat | ctcaaataaa | | 300 |
| taaataaata | aatagtgcga | atgtttatgc | caaggcgagc | aaggcctgac | acagcatcca | | 360 |
| aggccagtct | gggcacctgc | tcttttgcac | attaatataa | taagctttaa | caagaaatac | | 420 |
| atgttaactt | tctcaggatc | aaaggattca | gaaggctatt | ttgtctcat | tttatcctta | | 480 |
| ggcttcagca | gaagaaacac | ttcctataaa | tctcgcccaa | acaggaaagg | taagtggcct | | 540 |
| aaaatttttc | tagtattttc | aaaatgacc | agttacaata | ggaaatttct | tcttgtacta | | 600 |
| ttgtcactaa | tcccgactca | atatccttta | aaggacaaag | atgcatgcat | aagtaaaaat | | 660 |
| atgacaggtc | acaatcacgc | cggggtggtc | ctggggcgag | gcccaagttc | cctgcacgca | | 720 |
| ccggcacaag | cacgcacact | gtgatgggga | ggacgtttac | gtaccatgtc | cacaccactc | | 780 |
| cagacttggg | gagcgccagt | aggaactgag | ctccacactc | aatctggcac | accccctgtc | | 840 |
| catcttagtct | ctcaatgttc | tggggaatgt | tgcagccttc | acttcggccc | cggcccaatt | | 900 |
| ttccaaaqtc | accatcaccc | caggaaaata | ccaaacctag | gtttaaaaat | aggggaagga | | 960 |

| | | | | | | |
|--------------|-------------|--------------|-------------|-------------|-------------|------|
| aggggaagggga | gagaagaaa | gaaagataaaa | gaaagcccaa | cctccttcca | aaatgtcatg | 1020 |
| agaatcttga | gcacatatgg | tccttggcat | gaccacatga | cctgcagagc | ccctgttata | 1080 |
| gaactcattt | ttatattttc | cttagtataa | cagttaatgt | aatatgtcat | ttttgttaat | 1140 |
| agtgtctttt | tgtcatttta | ctttttaaaa | gattgtattg | aaatatacat | acaggaaagt | 1200 |
| gcatctatca | taagtgtgca | aattgatgaa | ttctaaaatc | tttattgtac | ctgttttagca | 1260 |
| cctagattga | caactgaacat | aactaacaac | cagaaatctc | cgtgtactcc | cttcctgtaa | 1320 |
| ctacccctgc | gcccgaacaa | atcactctct | tctaacagca | taactttgtg | tgactagctt | 1380 |
| ttttaatgta | aaagaatgaa | atctacagca | tgtattcatt | tgcatctggc | ttctgccacc | 1440 |
| caacattata | tttgtgggat | tcattttgtac | agttgcatat | tagttttgcag | atccctcact | 1500 |
| ctcgttttcta | tatgggtatta | tattgcataa | acgtaccaca | ctttatctaa | ctactgttaa | 1560 |
| atattttgtgc | atcttctact | tggggggcaat | ttcaaatagt | gctgctatga | acattcttgt | 1620 |
| aaatgtcttt | tggtgaacat | atgcaacaca | tatatgcgtt | gttgttggtt | cccaggaggg | 1680 |
| gcattccctgg | gtcataaaca | atgcatgtgt | tcaggtttag | tatgggtataa | tgccaaacag | 1740 |
| gtttccaaag | tgttttgtgcc | actttacata | cccgccatta | ttgaaaaaga | gttctgtttg | 1800 |
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atatttgaat | gtgggttttaa | tttgcactct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccacttgg | aaatgtgatt | taaattcata | taaagatata | gtagcaaaac | 1980 |
| acatagtaag | ttactttcat | atccagaaaag | tttagataga | atgatttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagteca | tgaatatattga | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caataatttt | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttcaggt | attttgtatg | gttccagcag | 2220 |
| tcagttagg | tgccatttgt | tgggaagcaca | catccacgta | tctgcacccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgc | tagttatcac | taactttgcc | 2340 |
| agtagaaatg | tactcccaat | ttcccacgga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacagggtt | tgaattctgt | tagaatagtt | gtttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtaataactt | ttattttaaaa | agtgaacaaa | agcttttcct | ctcccttacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggccccag | gccaaaatca | taaacgcttt | 2580 |
| caattaacta | ataataattg | ctggcatgtt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggctactga | agcccacttt | tgagacaaag | actatttctc | 2700 |
| ccccaaaagt | caagggaat | ataaaaagt | aaattagtga | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaag | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatgtt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggtcttgca | tgactctgtt | 2940 |
| gtggaaattc | aatttgttca | ttgtgttttg | ggctctctgg | gtggctcagg | ctgggctctg | 3000 |
| ggtccttggc | aattcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccctgcag | gagaagcatc | aggggtgtccg | actacgtggg | tttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcgggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcat | gctactcctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaaattcat | tctgtatttt | gcccgcgaag | ttttaaaagt | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccactct | ggagttttca | gtcccacatg | 3420 |
| ggagataaag | ggttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctcgtc | 3480 |
| ctttttcatt | actatcaaac | tcaaataaat | gtcttggtct | ttacattaca | ttcattcttc | 3540 |
| aaccatttgt | gtctggcttc | cacttccttc | acttcaccaa | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | atctctctac | aacattttatc | ctggctgcta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atttttccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | atcagggtttt | 3900 |
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattattt | tctgttttat | gtctcattgc | attgggtgaga | tcttgagaa | taattttaga | 4020 |
| acagtagtgg | gtattttcta | cttttaattg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | attcaaccaa | gacatgtcaa | gactagtgtg | ctctcaaacc | attagtattt | 4140 |
| atattattcc | tttccagcta | catttgttggg | atgtaaaaga | ccattttccag | gaatatggaa | 4200 |
| ctgttttact | aggtggagg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | aggttaaatg | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatatcttta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggcggggcac | ggtgggtcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcggggcga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaaaccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgcctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccaggga | 4620 |

ggtggagctt gcagtgaacc gagatcacgc cactgcactc cggcctgggc aaaagagcga 4680
gactccgtct caaacaacaa aacaaacaaa taaataaata a 4721

<210> 12538
<211> 5977
<212> DNA
<213> Homo sapiens

<400> 12538
aacagtaatg gtaattttgt tttcataaat aaaattttta attgaatatc tacaagccgg 60
tcatagcata tgcttctcca agcagaagag agtgtaacac ttgtcaggca ctagctctgt 120
ctctaaaatg aggcattggg gcctcctcac cagtttagcaa tttcctaaag caaagtcttg 180
ttaatacctt gcagtaggag catcttcaag aataacaatc ttttggccgg gtgcgggtggc 240
tcacgcctgt aatcccagca ctttggggagg ccgaggcagg tggatcacga ggtcaggaga 300
tcgagaccac ggtgaaaccc cgtctctact aaaaatacaa aaaattagct gggcgtgggtg 360
gcgggcgccct gtagtcccag ctactcggga ggctgaggca ggagaatggc atgaaccag 420
gaggcagaac ttgcagttag ccgagatcgc gccactgcac tccagcctgg gcgacagagc 480
gagactctgt ctcaaaaaaa aaaaaaaaaa aaaaggataa caatctttcc acacactttt 540
cacgtggact tcagagtggg aacgcctctt ttctgaggac cccgccccca acccctgctg 600
ctgagtaggc agatacacca gcgggcaaaa cggatgggtc cgggcctcat ggttcttcaa 660
gcagtaagac tcggctgagt tcatcaacag ctgtgatttc aacaggacga gggccatgtc 720
gtgacccccg cgtcccccaa gtcaggatgg cacgccaccc ccaggccacc tgcagcctta 780
cctgccccga gtccgtgacc gccaggcagt gcaggggccc gacagccaca tgcacgatct 840
tcttccctct cagcccttcc accacctaca gtttccacac gtgcacgtca gagccctggc 900
gcaacctgaa gtaatcccc tttcccctga gaaggaggcc cgtgggtggag tgttacaata 960
tagttgtggg ctgacaatgc tatacaagaa gacactcatt gtctcacatc tttcacagcc 1020
agctcaatga catcacacac agcaccgaag gtcttcgaac ttgtattcaa aatcatacac 1080
cattaattca aattaactta ttaagtcagc tgggaaaaaa cttaatacct taatacatgt 1140
tctacaatat ttaagttact gttgtagggt ttcatataga ctgaaaataa gacacattac 1200
tgcaaacacc tatccaaagt cctatctggg atacatcttt ctgagagtgc caatgtcggc 1260
cagtagcagt ggttcacgcc tgtaatccca gcactttggg aggcgcaggc ggggtggatca 1320
caaggtcagg agatcgagac catcctgggt aacatggtga aaccctatct ctactaaaaa 1380
cacaaaaaaa ttagccgggc atggtggcag acgcctgtag tcccagctac tcgggagggt 1440
gaggcaggag aatggcgtga acccgggaga cggagcttgc agtgagctga gattgtgcca 1500
ctgcattcca gcctgggcga cagagcgaga ctccatctca aataaataaa taaataaata 1560
aataaatagt gccaatgtta tgaccagagg cagcaaggcc tgacacagca tccaaggcca 1620
gtctgggcac ctgctcattt gcacattaat ataataagct tttacaagaa atacatgtta 1680
actttctcag gatcaaaagg ttcagaaggc tattttgtct tcattttatc cttaggcttc 1740
agcagaagaa acacttccta taaatctcgc ccaaacagga aaggtaagtg gcctaaaatt 1800
tttctagtat tttcaaaatg acccagttac aataggaaat ttcttcttgt actattgtca 1860
ctaataccga ctcaatatcc tttaaaggac aaagatgcat gcataagtaa aaatatgaca 1920
ggtcacaaac acgcccgggt ggtcctgggg cgaggcccaa gttccctgca cgcgtcggca 1980
caagcacgca cactgtgacg gggaggacgt ttacgtacca tgtccacacc actccagact 2040
tggtgagcgc cagtaggaac tgagctccac actcaatctg gcacaccccc tgtccattta 2100
gtctctcaat gttctgggga atgttgacg cttcacttcc gccccggccc aattttccaa 2160
agtcaccatc accccaggaa aataccaaac ctagggttaa aaatagggaa ggggaaggaa 2220
gggaagggaa gggagagaag aaaggaaaga taaagaaagc ccaacctcct tccaaaatgt 2280
catgagaatc ttgagcacat atggtccttg gcatgaccac atgacctgca gagccccctg 2340
tatagaactc atttttatat tttccttagt ataacagtta atataatatg tcatttttgt 2400
taatagtgtc tttttgtcat tttacttttt aaaagatttt attgaaatat acatacagga 2460
aagtgcactc atcataagtg tgcaaattga tgaattctaa aatctttatt gtacctgttt 2520
agcacataga ttgacactga acataactaa caaccagaaa tctccgtgta ctcccttcct 2580
gtaactaccc ctgcgcccga ccaaactact ctcttctaac agcataaact tgtgtgacta 2640
gcttttttaa tgtaaaagaa tgaaatctac agcatgtatt catttgcatc tggcttctgc 2700
caccacaact tatatttgtg ggattcattt gtacagttgc atattagttt gcagatccct 2760
cactctcatt tctatatggg atttatattg ataaacgtac cacactttat ccaactactg 2820
ttaaatattt gtgcattttc tacttggggg tgatttcaaa tagtgctgct atgaacattc 2880
ttgtaaatgt cttttgggtg acatatgcaa cacatatatg cgttggttgt ggttcccagg 2940
aggggcattc ctgggtcata aacaatgcgt gtgttcaggt ttagtacagt ataatgcaa 3000
acaggtttcc aaagtgtttg tgccacttta catacctgcc attattgaaa aagagttctg 3060

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ttgtctccac | attgtcacca | atacttgata | ttttctgttt | ttttttcttt | ttaaaccgta | 3120 |
| ctagtgggtg | tgcagtgata | ttgcaatgtg | gttttaattt | gcatcttcct | tgtgacaacc | 3180 |
| ttgattactg | taagccactt | ggaaatgtga | tttaaattca | tataaagata | tagtagcaaa | 3240 |
| acgcatacta | ggttactttc | gtatccagaa | agtttagata | gaatgatttc | tatgtaagct | 3300 |
| tttactgtgt | agtctgagtc | catgaatatt | gattacaaaa | aacacatctg | taggtgagtt | 3360 |
| acaatacctc | acttataatt | ccaattcat | gttgtgttag | ctcaatatatt | ttcaataaat | 3420 |
| ttttgcatgc | aattttcacc | ttctttctga | gtagtttcag | gtattttgta | tggttccagc | 3480 |
| agtcagttag | gttgccattg | tttggaaagca | cacatccacg | tatctgcacc | atgatgatat | 3540 |
| gacacgcccc | taccccccat | ttcacatttt | gtcagaagtg | catagttatc | actaactttg | 3600 |
| ccagtagaaa | tgtactccca | atttcccacg | gacttatctt | gaataatctc | tccactgaag | 3660 |
| cataacagggt | tttgaattct | gttagaatag | ttgtttttac | tatcttttaa | ttttatacaa | 3720 |
| atttcaaagt | tacgtaatac | ttttatttaa | aaagtgaaac | aaagcttttc | ctctccttta | 3780 |
| cccacatggt | agtccagcag | aggggggaaag | cattggcccc | aggccaaaat | cataaacgct | 3840 |
| ttcaattaac | taataataat | tgctggcatg | ttgccattaa | atattcttgt | ctcattatct | 3900 |
| ctggttgctt | tatcaaacc | ataggtcact | gaagcccact | tttgagacaa | agactatttc | 3960 |
| tcccccaaaa | gtcaagggaa | atataaaaaa | tgaaattagt | gattaagaat | agaagtcaat | 4020 |
| taataacaatc | attttgtctt | aattatttaa | agtccagttt | tttccctcca | gcaaacctga | 4080 |
| aaatacacta | tcctccagct | atcagaatta | tattgagatc | tactcacatt | tatgatgatg | 4140 |
| ttcagagatt | ctcatctggga | aggaaaaggc | acacgctgcg | gcggtcttgc | atgactctgt | 4200 |
| tgttgtggaa | attcaatttg | ttcatgtgt | tttgggtctc | ctgggtggtc | agggctgggc | 4260 |
| tttgggtcct | tggcaattcc | tcaggttccc | agcactccaa | agccaagctc | acctcctcat | 4320 |
| cacacaccct | acaggagaag | cattagggtg | tccgactacg | tgggtttcat | agctgtggaa | 4380 |
| aagccaaagg | ggagactcct | gaagaaaggc | ggtgaagact | gtgaagagcg | ggtcaggaag | 4440 |
| atgagcacag | cactgctact | cctgtgggca | cagggcacgc | atgtctccag | ccagcgccac | 4500 |
| cttggttaaat | acatgggaac | tcactgaaat | tcattctgta | ttttgccgcg | aaagttttaa | 4560 |
| agctttcatc | cacagtcagg | aattaaactt | ataccaatga | gagcctcaca | cattcaagga | 4620 |
| tgtactaagc | actacaggcc | tcacagaaac | agagatccca | tcttggagtt | ttcagtacca | 4680 |
| catggggagat | aaagggtttt | gaacatgaaa | tgacaaaaac | aacagcaaga | agaaaattct | 4740 |
| tgtccttttt | cattactatc | agactcaaat | aaatgtcttg | gctcttcatt | tacattcatt | 4800 |
| tttcaaccat | tgtggtctgg | cttccacttc | cttcacttca | ccaacatggc | tctgccaaag | 4860 |
| gaagcccgtg | atctctaggc | catcacttta | attgatcttt | ctacaacatt | tatcctgggt | 4920 |
| gttaagccct | ccttacaaca | ttcttctctc | tttgttttta | tagctccatc | tctcctgctt | 4980 |
| ctttaacttg | ataatgcata | cttgattttt | ctatttgta | tttcataaac | caattaatac | 5040 |
| acagataaaa | tgactgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 5100 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | gtcaggtttt | 5160 |
| tgacagaatt | ttgtttacaa | gtaataaaaa | ttttatctcc | aattttcaat | aattacacc | 5220 |
| attattttctg | ttttatgtct | cattgcattg | atgagatctt | gcagaataat | tttaaaacag | 5280 |
| tagtgggtat | tttctgcttt | taatgggtat | gtctagtatt | tcatatattg | tgtcttatag | 5340 |
| aacactattc | aaccaagaca | tgtcaagact | agttgtctct | caaaccatta | gtatttatat | 5400 |
| tattcctttc | cagctacact | tgtaggatgt | aaaagaccat | ttccaggaat | atggaactgt | 5460 |
| tttactagggt | ggagggtata | tataaccata | taatagtcac | agaaactaca | ttaatactca | 5520 |
| cataaatcaa | agcataaatg | acatagaatc | ttggcagatt | tgcttaaggt | taaattgtata | 5580 |
| actcttatca | gcaggagggtg | aaagaatata | ttcttagata | cttggcacat | ttagaaaata | 5640 |
| taatctaata | ttctttttta | agaataggcc | gggcacgggtg | gctcacacct | gtaatccag | 5700 |
| cactttggga | ggccaaggcg | ggcggatcac | gaggtcagga | gatcgagacc | atcctggcta | 5760 |
| acacggtgaa | accccgctct | tactaaaaat | acaaaaaatt | agctgggcgc | ggtggcgggc | 5820 |
| acctgtagtc | ccagctactc | aggaggctga | ggcaggagaa | cggcatgaac | ccgggagggtg | 5880 |
| cgctttgcag | tgagccgaga | tcgcgcact | gcactccagc | ctgggcgaaa | gagcgagact | 5940 |
| ctgtctcaaa | aaaaaaaaaa | aaaaagaata | aataaaa | | | 5977 |

```
<210> 12539
<211> 327
<212> DNA
<213> Homo sapiens
```

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12539 | | | | | | |
| acgtgcacgt | cagagcggtg | gcccaacctg | aagtaatccc | cctttcccct | gagaggaggc | 60 |
| ccgtgggtgga | gtgttacaaat | acggttatgg | tcttaccatg | cgatacaaga | agacactcat | 120 |
| tgtctcacat | ctttcacagc | cagctcaatg | acatcacaca | cagcacccaa | ggtcttcgaa | 180 |
| cttgattatca | aaatcacata | ccattaattc | aaattaactt | attaagtcag | ctgggaaaaa | 240 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctcgttttcta | tatggtatta | tattgcataa | acgtaccaca | ctttatctaa | ctactgttaa | 1560 |
| atatttgtgc | atcttctact | tgggggcat | ttcaaatagt | gctgctatga | acattcttgt | 1620 |
| aaatgtcttt | tggatgaact | atgcaacaca | tatatgcgtt | gttggttggt | cccaggaggg | 1680 |
| gcattcctgg | gtcataaaca | atgcatgtgt | tcagggttag | tatggtataa | tgccaaacag | 1740 |
| gtttccaaag | tgtttgtgcc | actttacata | cccgccatta | ttgaaaaaga | gttctgtttg | 1800 |
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atattgcaat | gtgggtttta | tttgcattct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccacttgg | aaatgtgatt | taaattcata | taaagatata | gtagcaaac | 1980 |
| acatagtaag | ttactttcat | atccagaaag | tttagataga | atgatttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagtcca | tgaatattga | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caatattttt | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttcaggt | attttgtatg | gttccagcag | 2220 |
| tcagttaggt | tgccattggt | tggaagcaca | catccacgta | tctgcaccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgcg | tagttatcac | taactttgcc | 2340 |
| agtagaaatg | tactcccaat | ttcccacaga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacagggtt | tgaattctgt | tagaatagtt | gtttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtaatactt | ttattttaaaa | agtgaacaaa | agcttttctt | ctcccttacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggccccag | gccaaaatca | taaacgcttt | 2580 |
| caattaacta | ataataattg | ctggcatggt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagaccat | aggtcactga | agcccacttt | tgagacaaag | actattttctc | 2700 |
| ccccaaaagt | caagggaat | ataaaaagt | aaattagtga | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaag | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatgtt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggctcttgca | tgactctgtt | 2940 |
| gtggaaattc | aatttgttca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggtccttggc | aattcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccctgcag | gagaagcatc | aggggtgtccg | actacgtggg | tttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcgggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactctctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaaattcat | tctgtatttt | gccacaaaag | ttttaaaagt | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atccccatctt | ggagttttca | gtcccacatg | 3420 |
| ggagataaag | ggttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctctgc | 3480 |
| cttttttcatt | actatcaaac | tcaaataaat | gtcttggctc | ttacattaca | ttcattcttc | 3540 |
| aaccattgtg | gtctggcttc | cacttccttc | acttcaccaa | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | atctctctac | aacattttatc | ctggctcgta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atttttccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaacaag | actgtgtata | tcaaaccatg | tttgatataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | atcaggtttt | 3900 |
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattattt | tctgttttat | gtctcattgc | attggtgaga | tcttgcagaa | taattttaga | 4020 |
| acagtagtgg | gtatttttcta | cttttaatgg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | attcaaccaa | gacatgtcaa | gactagttgt | ctctcaaacc | attagatattt | 4140 |
| atattattcc | tttccagcta | catttgtggg | atgtaaaaga | ccatttccag | gaatatggaa | 4200 |
| ctgttttact | aggtggagg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | aggttaaag | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatattctta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggccgggcac | ggtggctcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcgggcgga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaacccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgcctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccagga | 4620 |
| ggtggagctt | gcagtgaacc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactccgtct | caaacaacaa | aa | | | | 4702 |

<210> 12543

<211> 640

<212> DNA

<213> Homo sapiens

<400> 12543

| | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|-----|
| aaattgtaag | cggttaatat | ttgttataaat | tcgcgttaaa | tttttggttaa | atcagctcat | 60 |
| tttttaacca | ataggccgaa | atcggcaaaa | tcccttataa | atcaaaagaa | tagaccgaga | 120 |
| taggggttag | tggtgttcca | gtttggaaca | agagtccact | attaaagaac | gtggactcca | 180 |
| acgtcaaagg | gcgaaaaacc | gtctatcagg | gcgatggccc | actacgtgaa | ccatcacct | 240 |
| aatcaagttt | tttggggtcg | aggtgccgta | aagcactaaa | tcggaaccct | aaagggagcc | 300 |
| cccgaatttag | agcttgacgg | ggaaagccgg | cgaacgtggc | gagaaaggaa | gggaagaaag | 360 |
| cgaaggagc | gggcgctagg | gcgctggcaa | gtgtagcgg | cacgctgcgc | gtaaccacca | 420 |
| caccgcgcgc | gcttaatgcg | ccgctacagg | gcgcgtccat | tcgccattca | ggctgcgcaa | 480 |
| ctggtgggaa | gggcgatcgg | tcggggcctc | ttcgctatta | cgccagctgg | cgaagggggg | 540 |
| atgtgctgca | agcgatttaa | gttgggtaac | gccagggttt | tcccagtcac | gacgttgtaa | 600 |
| aacgacggcc | agtgaattgt | aatacgaact | actatagggc | | | 640 |

<210> 12544

<211> 606

<212> DNA

<213> Homo sapiens

<400> 12544

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| gttatatatt | tggtaratca | gttcattttt | taaccaatag | gccgaaatcg | gcaaaatccc | 60 |
| ttataaatca | aaagaataga | ccgagatagg | gttgagtgtt | gttccagttt | ggaacaagag | 120 |
| tccactatta | aagaacgtgg | actccaacgt | caaagggcga | aaarccgtct | atcagggcga | 180 |
| tggcccacta | cgtgaaccat | caccctaata | aagttttttg | gggtcgaggt | gccgtaaagc | 240 |
| actaaatcgg | aaccctaaag | ggagcccccg | atttagagct | tgacggggaa | agccggcgaa | 300 |
| cgtggcgaga | aagkaaggga | agaaagcgaa | aggagcgggc | gctagggcgc | tggcaagtgt | 360 |
| agcggtcacg | ctgcgcgtaa | ccaccacacc | cgccgcgctt | aatgcgcgcg | tacagggcgc | 420 |
| gtccattcgc | cattcaggct | gcgcaactgt | tgggaagggc | gatcgggtgcg | ggcctcttcg | 480 |
| ctattacgca | agctggcgaa | agggggatgt | gctgcaaggc | gattaagtgt | ggtaacgcca | 540 |
| gggttttccc | agtcacgacg | ttgtaaaacg | acggccagtg | aattgtaata | cgactcacta | 600 |
| tagggc | | | | | | 606 |

<210> 12545

<211> 4721

<212> DNA

<213> Homo sapiens

<400> 12545

| | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|------|
| gtgccaatgt | tgccagtcg | cggtgggttca | cgctgtaat | cccagcactt | tgggaggtcg | 60 |
| aggtgggttg | atcacgaggt | caggagattg | agaccatcct | ggctaacacg | gtgaaacccc | 120 |
| atctctacta | aaaatacaaa | aaaattagcc | gggcatggtg | gcagacacct | gtagtcccag | 180 |
| ctactcgga | ggctgaggca | ggagaatggt | gtgaaccccc | gaggcggagc | ttgcaatgag | 240 |
| ctgagattgt | gccactgcat | tccagcctgg | gcgatagagc | gagactccat | ctcaataaaa | 300 |
| taaataaata | aatagtgcga | atgttatgac | cagaggcagc | aaggcctgac | acagcatcca | 360 |
| aggccagtct | gggcacctgc | tcttttgcac | attaatataa | taagctttaa | caagaaatac | 420 |
| atgttaactt | tctcaggatc | aaaggattca | gaaggctatt | ttgctctcat | tttatcctta | 480 |
| ggcttcagca | gaagaaacac | tctctataaa | tctcgcccaa | acaggaaagg | taagtggcct | 540 |
| aaaatttttc | tagtattttc | aaaatgaccc | agttacaata | ggaaatttct | tcttgtacta | 600 |
| ttgtcactaa | tcccgaactc | atatacctta | aaggacaaag | atgcatgcat | aagtaaaaaat | 660 |
| atgacaggtc | acaatcacgc | cgggggtggtc | ctggggcgag | gcccaggttc | cctgcacgca | 720 |
| ccggcacaag | cacgcacact | gtgatgggga | ggacgtttac | gtaccatgtc | cacaccactc | 780 |
| cagacttggt | gagcgccagt | aggaactgag | ctccacactc | aatctggcac | accccctgtc | 840 |
| catttagtct | ctcaatgttc | tgggggaatgt | tgcagccttc | acttccgccc | cggcccaatt | 900 |
| ttccaaagtc | accatcacc | caggaaaata | ccaaacctag | gtttaaaaaat | agggaaggga | 960 |
| agggaaggga | gagaagaaag | gaaagataaa | gaaagcccaa | cctccttcca | aaatgtcatg | 1020 |
| agaatcttga | gcacatatgg | tccttggcat | gaccacatga | cctgcagagc | ccctgttata | 1080 |
| gaactcattt | ttatattttc | cttagtataa | cagttaatgt | aatatgtcat | ttttgttaat | 1140 |
| agtgtctttt | tgctatttta | ctttttaaaa | gattgtattg | aaatatacat | acaggaaagt | 1200 |
| gcacttatca | taagtgtgca | aattgatgaa | ttctaaaatc | tttattgtac | ctgttttagca | 1260 |
| cctagattga | cactgaacat | aactaacaac | cagaaatctc | cgtgtactcc | cttcctgtaa | 1320 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctacccctgc | gcccgaacaa | atcactctct | tctaacagca | taactttgtg | tgactagctt | 1380 |
| ttttaatgta | aaagaatgaa | atctacagca | tgtattcatt | tgcatctggc | ttctgccacc | 1440 |
| caacattata | tttgtgggat | tcattttgtac | agttgcatat | tagtttgcag | atccctcact | 1500 |
| ctcgtttcta | tatgggtatta | tattgcataa | acgtaccaca | ctttatctaa | ctactgttaa | 1560 |
| atattttgtgc | atctttctact | tgggggcaat | ttcaaatagt | gctgctatga | acattcttgt | 1620 |
| aaatgtcttt | tgggtgaacat | atgcaacaca | tatatgctgt | gttgttgggt | cccaggaggg | 1680 |
| gcatttcctgg | gtcataaaca | atgcatgtgt | tcagggttag | tatgggtataa | tgccaaacag | 1740 |
| gtttccaaag | tgtttgtgcc | actttacata | cccgccatta | ttgaaaaaga | gttctgtttg | 1800 |
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atattgcaat | gtgggtttta | tttgcattct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccactttg | aaatgtgatt | taaattcata | taaagatata | gtagcaaaac | 1980 |
| acatagtaag | ttactttcat | atccagaaag | tttagataga | atgatttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagtcca | tgaatatgtg | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caatatTTTT | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttcaggt | atTTTgtatg | gttccagcag | 2220 |
| tcagttaggt | tgccattggt | tgggaagcaca | catccacgta | tctgcaccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgca | tagttatcac | taactttgcc | 2340 |
| agtagaaatg | tactcccaat | ttcccacgga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacagggtt | tgaattctgt | tagaatagtt | gtttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtataactt | ttatttaaaa | agtgaacaaa | agcttttctt | ctcccttacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggcccccag | gccaaaatca | taaacgcttt | 2580 |
| caattaacta | ataataattg | ctggcatggt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggtcactga | agcccatctt | tgagacaaag | actatttctc | 2700 |
| ccccaaaagt | caagggaaat | ataaaaagtg | aaattagtga | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttatttaaa | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatggt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggctcttga | tgactctggt | 2940 |
| gtggaaattc | aatttgttca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggctccttggc | aattcttcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccctgcag | gagaagcatc | aggggtgtccg | actacgtggg | ttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactcctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaatttcat | tctgtatttt | gcccgcaaag | ttttaaaagct | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccatctt | ggagttttca | gtcccatatg | 3420 |
| ggagataaag | ggtttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctctgc | 3480 |
| cttttttcatt | actatcaaac | tcaaataaat | gtcttggctc | ttacattaca | ttcattcttc | 3540 |
| aaccattgtg | gtctggcttc | cacttccctc | acttcaccaa | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | atctctctac | aacatttata | ctggctgcta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atTTTTccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aattagttct | attaacata | ttaattgtat | tgtttaattt | atcagggtttt | 3900 |
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattattt | tctgttttat | gtctcattgc | attggtgaga | tcttgcagaa | taattttaga | 4020 |
| acagtagtgg | gtattttcta | cttttaatgg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | attcaaccaa | gacatgtcaa | gactagtgtg | ctctcaaacc | attagtattt | 4140 |
| atattattcc | tttccagcta | catttgtggg | atgtaaaaga | ccatttccag | gaatatggaa | 4200 |
| ctgtttttact | aggtggaggg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | agggttaaag | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatattctta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggccgggcac | ggtggctcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcggggcga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaacccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgcctgt | agtcacagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccagga | 4620 |
| ggtggagctt | gcagtgcgc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactccgtct | caaacaacaa | aacaacaaaa | taaataaata | a | | 4721 |

<210> 12546

<211> 640

<212> DNA
<213> Homo sapiens

<400> 12546
aaattgtaag cgtaaataatt ttgttaaaat tcgcgttaaa tttttgttaa atcagctcat 60
tttttaacca ataggccgaa atcggcaaaa tcccttataa atcaaaagaa tagaccgaga 120
tagggttgag tggtgttcca gtttggaaca agagtccact attaaagaac gtggactcca 180
acgtcaaagg gcgaaaaacc gtctatcagg gcgatggccc actacgtgaa ccatcaccct 240
aatcaagttt tttgggggtcg aggtgccgta aagcactaaa tcggaaccct aaagggagcc 300
cccgatttag agcttgacgg ggaaagccgg cgaacgtggc gagaaaggaa gggaagaaag 360
cgaaaggagc gggcgctagg gcgctggcaa gtgtagcggc cacgctgctc gtaaccacca 420
caccgcccgc gcttaatgag ccgctacagg gcgctccat tcgccattca ggctgcgcaa 480
ctgttgggaa gggcgatcgg tcggggcctc ttcgctatta cgccagctgg cgaaaggggg 540
atgtgctgca aggcgattaa gttgggtaac gccaggggtt tcccagtcac gacgttgtaa 600
aacgacggcc agtgaattgt aatacgactc actatagggc 640

<210> 12547
<211> 513
<212> DNA
<213> Homo sapiens

<400> 12547
gagtgttggt ccagtttgga acaagagtcc actatttaaag aacgtggact ccaacgtcaa 60
agggcgaaaa accgtctatc agggcgatgg ccactacgt gaaccatcac cctaatacaag 120
ttttttgggg tcgaggtgcc gtaaagcact aaatcggaaac ctaaaggga gcccccgatt 180
tagagcttga cggggaaagc cggcgaaagt ggcgagaaag gaagggaaga aagcgaaagg 240
agcggggcct agggcgctgg caagtgtagc ggctacgctg cgcgtaacca ccacaccgc 300
cgcgcttaat gcgcgctac agggcgcgct cattcgccat tcaggctgct caactgttgg 360
gaagggcgat cgggtcgggc ctcttcgcta ttacgccagc tggcgaaagg gggatgtgct 420
gcaaggcgat taagttgggt aacgccaggg ttttcccagt cagcagcttg taaaacgacg 480
gccagtgaat tgtaatacga ctactatag ggc 513

<210> 12548
<211> 612
<212> DNA
<213> Homo sapiens

<400> 12548
ttcgcgttaa atttttgtta caatcagctc attgtttaac caataggccg aaatcggcaa 60
aatcccttat aaatcaaaag aatagaccga gataggggtt agtgttggtc cagtttgga 120
caagagtcca ctattaaaga acgtggactc caacgtcaaa gggcgaaaaa ccgtctatca 180
gggcgatggc ccactacgtg aaccatcacc ctaatacaagt tttttgggtt cgaggtgccg 240
taaagcacta aatcggaacc cttaaaggag cccccgattt agagcttgac ggggaaagcc 300
ggcgaaagtg gcgagaaagg aagggaagaa agcgaaagga gcgggcgcta gggcgctggc 360
aagtgtagcg gtcacgtgc gcgtaaccac cacaccgcc cgccttaatg cgccgctaca 420
gggcgctcc attcgccatt caggctgctc aactgttggg aaggcgatc ggtgcgggcc 480
tcttcgctat tacgccagct ggcgaaaggg ggatgtgctg caaggcgatt aagttgggta 540
acgccagggt tttcccagtc acgacgttgt aaaacgacgg ccagtgaatt gtaatacgac 600
tcactatag gc 612

<210> 12549
<211> 462
<212> DNA
<213> Homo sapiens

<400> 12549
caacgtcaaa gggcgaaaaa ccgtctatca gggcgatggc ccactacgtg aaccatcacc 60
ctaatacaagt tttttgggtt cgaggtgccg taaagcacta aatcggaacc cttaaaggag 120

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cccccgattt | agagcttgac | ggggaaagcc | ggcgaacgtg | gcgagaaagg | aagggaagaa | 180 |
| agcgaaagga | gcgggcgcta | gggcgctggc | aagtgtagcg | gtcacgctgc | gcgtaaccac | 240 |
| cacacccgcc | gcgcttaatg | cgccgctaca | gggcgctgcc | attcgccatt | caggctgcgc | 300 |
| aactgttggg | aagggcgatc | ggtgcggggc | tcttcgmtat | tacgccagct | ggcgaaaggg | 360 |
| ggatgtgctg | caaggcgatt | aagttgggta | acgccagggt | tttcccagtc | acgacgttgt | 420 |
| aaaacgacgg | ccagtgaatt | gtaatacgac | tcactatagg | gc | | 462 |

<210> 12550
 <211> 640
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12550 | | | | | | |
| aaattgtaag | cgттаататт | ttgttaaaat | tcgcgttaaa | tttttgtaa | atcagctcat | 60 |
| ttttaacca | ataggccgaa | atcggaacaa | tccttataa | atcaaaagaa | tagaccgaga | 120 |
| tagggttgag | tgttgttcca | gtttggaaca | agagtccact | attaaagaac | gtggactcca | 180 |
| acgtcaaagg | gcgaaaaacc | gtctatcagg | gcgatggccc | actacgtgaa | ccatcacct | 240 |
| aatcaagttt | tttggggctg | aggtgccgta | aagcactaaa | tcggaaccct | aaagggagcc | 300 |
| cccgaattag | agcttgacgg | ggaaagccgg | cgaacgtggc | gagaaaggaa | gggaagaaag | 360 |
| cgaaggagac | gggcgctagg | gcgctggcaa | gtgtagcggt | cacgctgcgc | gtaaccacca | 420 |
| cacccgccgc | gcttaatgcg | ccgctacagg | gcgcgtccat | tcgccattca | ggctgcgcaa | 480 |
| ctgttgggaa | gggcgatcgg | tgccggccctc | ttcgctatta | cgccagctgg | cgaaaggggg | 540 |
| atgtgctgca | aggcgattaa | gttgggtaac | gccagggttt | tcccagtcac | gacgttgtaa | 600 |
| aacgacggcc | agtgaattgt | aatacgactc | actatagggc | | | 640 |

<210> 12551
 <211> 640
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12551 | | | | | | |
| aaattgtaag | cgттаататт | ttgttaaaat | tcgcgttaaa | tttttgtaa | atcagctcat | 60 |
| ttttaacca | ataggccgaa | atcggaacaa | tccttataa | atcaaaagaa | tagaccgaga | 120 |
| tagggttgag | tgttgttcca | gtttggaaca | agagtccact | attaaagaac | gtggactcca | 180 |
| acgtcaaagg | gcgaaaaacc | gtctatcagg | gcgatggccc | actacgtgaa | ccatcacct | 240 |
| aatcaagttt | tttggggctg | aggtgccgta | aagcactaaa | tcggaaccct | aaagggagcc | 300 |
| cccgaattag | agcttgacgg | ggaaagccgg | cgaacgtggc | gagaaaggaa | gggaagaaag | 360 |
| cgaaggagac | gggcgctagg | gcgctggcaa | gtgtagcggt | cacgctgcgc | gtaaccacca | 420 |
| cacccgccgc | gcttaatgcg | ccgctacagg | gcgcgtccat | tcgccattca | ggctgcgcaa | 480 |
| ctgttgggaa | gggcgatcgg | tgccggccctc | ttcgctatta | cgccagctgg | cgaaaggggg | 540 |
| atgtgctgca | aggcgattaa | gttgggtaac | gccagggttt | tcccagtcac | gacgttgtaa | 600 |
| aacgacggcc | agtgaattgt | aatacgactc | actatagggc | | | 640 |

<210> 12552
 <211> 654
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12552 | | | | | | |
| aataccgcat | caggaaattg | taagcgtaa | tattttgtta | aaattcgcgt | taaatTTTTg | 60 |
| ttaaatcagc | tcatttttta | accaataggc | cgaaatcggc | aaaatccctt | ataaatcaaa | 120 |
| agaatagacc | gagataggg | tgagtgttgt | tccagttttg | aacaagagtc | cactattaaa | 180 |
| gaacgtggac | tccaacgtca | aagggcgaaa | aaccgtctat | cagggcgatg | gccactacg | 240 |
| tgaaccatca | ccctaataca | gttttttggg | gtcgaggtgc | cgtaaagcac | taaatcgga | 300 |
| ccctaaggga | agccccgat | ttagagcttg | acggggaaa | ccggcgaaac | tggcgagaaa | 360 |
| ggaagggaag | aaagcgaaag | gagcggggcg | tagggcgctg | gcaagtgtag | cggtcacgct | 420 |
| gcgcgtaacc | accacaccgc | ccgcgcttaa | tgcccgctca | cagggcgctg | ccattcgcca | 480 |
| ttcaggctgc | gcaactgttg | ggaagggcga | tcgggtgcgg | cctcttcgct | attacgccag | 540 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctggcgaaag | ggggatgtgc | tgcaaggcga | ttaagttggg | taacgccagg | gttttcccag | 600 |
| tcacgacgtt | gtaaaacgac | ggccagtga | ttgtaatac | actcactata | gggc | 654 |

<210> 12553
 <211> 647
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (29)
 <223> n equals a,t,g, or c

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|-----|
| <400> 12553 | | | | | | |
| cgcacacagga | aatgtaagcg | ttaatattnt | gtaaaattcg | cgttaaattt | ttgttaaatac | 60 |
| agctcatttt | ttaaccaata | ggccgaaatc | ggcaaaatcc | cttataaatc | aaaagaatag | 120 |
| accgagatag | ggttgagtgt | tggtccagtt | tggaacaaga | gtccactatt | aaagaacgtg | 180 |
| gactccaacg | tcaaagggcg | aaaaaccgtc | tatcaggggc | atggccact | acgtgaacca | 240 |
| tcaccctaata | caagtttttt | ggggctcgagg | tgccgtaaag | cactaaatcg | gaaccctaaa | 300 |
| gggagccccc | gatttagagc | ttgacgggga | aagccggcga | acgtggcgag | aaaggaagg | 360 |
| aagaaagcga | aaggagcggg | cgctagggcg | ctggcaagt | tagcgggtcac | gctgcgcgta | 420 |
| accaccacac | ccgccgcgct | taatgcgcgc | ctacagggcg | cgccatttcg | ccattcaggc | 480 |
| tgcgcaactg | ttgggaagg | cgatcggtgc | gggcctcttc | gctattacgc | cagctggcga | 540 |
| aagggggatg | tgctgcaagg | cgattaagtt | gggtaacgcc | agggttttcc | cagtcacgac | 600 |
| gttgtaaaac | gacggccagt | gaattgtaat | acgactcact | atagggc | | 647 |

<210> 12554
 <211> 5977
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12554 | | | | | | |
| aacagtaatg | gtaattttgt | tttcataaat | aaaattttta | attgaatatc | tacaagccgg | 60 |
| tcatagcata | tgcttctcca | agcagaagag | agtgtaacac | ttgtcaggca | ctagctctgt | 120 |
| ctctaaaaatg | aggcatgggt | gcctcctcac | cagttagcaa | tttcctaaag | caaagtcttg | 180 |
| taataccttt | gcagtaggag | catcttcaag | aataacaatc | ttttggccgg | gtgcgggtggc | 240 |
| tcacgcctgt | aatcccagca | ctttggggag | ccgagccagg | tggatcacga | ggtcaggaga | 300 |
| tcgagaccac | ggtgaaaccc | cgtctctact | aaaaatacaa | aaaattagct | gggcgtgggtg | 360 |
| gcggggcgct | gtagtccag | ctactcgagg | ggctgaggca | ggagaatggc | atgaaccag | 420 |
| gaggcagaac | ttgcagtgc | ccgagatgc | gccactgcac | tccagcctgg | gcgacagagc | 480 |
| gagactctgt | ctcaaaaaaa | aaaaaaaaaa | aaaaggataa | caatctttcc | acacactttt | 540 |
| cacgtggact | tcagagtggg | aacgcctctt | ttctgaggac | cccggcccca | acccctgctg | 600 |
| ctgagtaggc | agatacacca | gcggggcaaaa | cggatgggtc | ccggcctcat | ggttcttcaa | 660 |
| gcagtaagac | tcggctgagt | tcatacaacag | ctgtgatctt | aacaggacga | gggccatgtc | 720 |
| gtgaccccca | cgtcccccac | gtcaggatgg | cagccacccc | ccaggccacc | tgacgcctta | 780 |
| cctgccccga | gtccgtgacc | gccaggcagt | gcaggggccc | gacagccaca | tgacgatct | 840 |
| tcttccctct | cagcccttcc | accacctaca | gtttccacac | gtgcacgtca | gagccctggc | 900 |
| gcaacctgaa | gtaatcccc | tttcccttga | gaaggaggcc | cgtgggtggag | tgttacaata | 960 |
| tagttgtgg | ctgacaatgc | tatacaagaa | gacactcatt | gtctcacatc | tttcacagcc | 1020 |
| agctcaatga | catcacacac | agcaccacag | gtcttcgaac | ttgtattcaa | aatcatacac | 1080 |
| cattaattca | aattaactta | ttaagtcagc | tgggaaaaaac | cttaataacct | taatacatgt | 1140 |
| tctacaatat | ttaagttact | gttgtaggtt | ttcatataga | ctgaaaataa | gacacattac | 1200 |
| tgcaaacacc | tatccaaagt | cctatctgg | atacatcttt | ctcagagtgc | caatgtcggc | 1260 |
| cagtagcagt | ggttcacgcc | tgtaatccga | gcactttggg | aggccgaggc | gggtggatca | 1320 |
| caaggtcagg | agatcgagac | catcctggct | aacatgggtga | aaccctatct | ctactaaaaa | 1380 |
| cacaaaaaaa | ttagccgggc | atggtggcag | acgcctgtag | tcccagctac | tcgggaggct | 1440 |
| gaggcaggag | aatggcgtga | acccggggaga | cggagcttgc | agtgcagctga | gattgtgcca | 1500 |
| ctgcattcca | gcctggggcga | cagagcgaga | ctccatctca | aataaataaa | taaataaata | 1560 |
| aataaatagt | gccaatgtta | tgaccagagg | cagcaaggcc | tgacacagca | tccaaggcca | 1620 |

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|------|
| gtctgggcac | ctgctcattt | gcacattaat | ataataagct | tttacaagaa | atacatgtta | 1680 |
| actttctcag | gatcaaagga | ttcagaaggc | tattttgctc | tcattttatc | cttaggcttc | 1740 |
| agcagaagaa | acacttccta | taaatctcgc | ccaaacagga | aaggtaagt | gcctaaaatt | 1800 |
| tttctagtat | tttcaaaatg | accaggttac | aataggaaat | ttcttcttgt | actattgtca | 1860 |
| ctaataccga | ctcaatatcc | tttaaaggac | aaagatgcat | gcataagtaa | aaatatgaca | 1920 |
| ggtcacaatc | acgccggggt | ggctctgggg | cgaggcccaa | gttccctgca | cgcgctcgga | 1980 |
| caagcacgca | cactgtgacg | gggaggacgt | ttacgtacca | tgtccacacc | actccagact | 2040 |
| tgggtgagcg | cagtaggaac | tgagctccac | actcaatctg | gcacaccccc | tgtccattta | 2100 |
| gtctctcaat | gttctgggga | atgttgacgc | cttcacttcc | gccccggccc | aattttccaa | 2160 |
| agtcaccatc | accccaggaa | aataccaaac | ctaggtttaa | aaatagggaa | gggaagggaa | 2220 |
| gggaagggaa | gggagagaag | aaaggaaaga | taaagaaagc | ccaacctcct | tccaaaatgt | 2280 |
| catgagaatc | ttgagcacat | atggctcctg | gcataaccac | atgacctgca | gagccccgtg | 2340 |
| tatagaactc | atttttatat | tttcccttagt | ataacagtta | atataaatatg | tcatttttgt | 2400 |
| taatagtgtc | tttttgtcat | tttacttttt | aaaagatttt | attgaaatat | acatacagga | 2460 |
| aagtgcattc | atcataagt | tgcaaatgga | tgaattctaa | aatctttatt | gtacctgttt | 2520 |
| agcacataga | ttgacactga | acataactaa | caaccagaaa | tctccgtgta | ctcccttcc | 2580 |
| gtaactaccc | ctgcgcccga | ccaaatcact | ctcttctaac | agcataactt | tgtgtgacta | 2640 |
| gcttttttaa | tgtaaaagaa | tgaaatctac | agcatgtatt | catttgcatt | tggtctctgc | 2700 |
| cacccaacat | tatatattgt | ggattcattt | gtacagtgtc | atattagttt | gcagatccct | 2760 |
| caactctcatt | tctatatggt | attatatggc | ataaacgtac | cacactttat | ccaactactg | 2820 |
| ttaaatattt | gtgcattttc | tacttggggg | tgatttcaaa | tagtgctgct | atgaacattc | 2880 |
| ttgtaaatgt | cttttggtga | acatatgcaa | cacatatatg | cgttgttgtt | ggttcccagg | 2940 |
| aggggcattc | ctgggtcata | aacaatgcgt | gtgttcaggt | ttagtacagt | ataatgcaa | 3000 |
| acaggtttcc | aaagtgtttg | tgccacttta | catacctgcc | attattgaaa | aagagtctct | 3060 |
| tttgctccac | attgtcacca | atacttgata | ttttctgttt | tttttttctt | ttaaaccgta | 3120 |
| ctagtgggtg | tgcaagtata | ttgcaatgtg | gttttaattt | gcattcttcc | tgtgacaacc | 3180 |
| ttgattactg | taagccactt | ggaaatgtga | tttaaattca | tataaagata | tagtagcaaa | 3240 |
| acgcatacta | ggttactttc | gtatccagaa | agtttagata | gaatgatttc | tatgtaagct | 3300 |
| tttactgtgt | agcttgagtc | catgaatatt | gattacaaaa | aacacatctg | taggtgagtt | 3360 |
| acaataactc | acttataatt | ccaaattcat | gttgttttag | ctcaatattt | ttcaaatatt | 3420 |
| ttttgcatgc | aattttcacc | ttctttctga | gtagtttcag | gtattttgta | tggttccagc | 3480 |
| agtcagttag | gttgccattg | tttggaagca | cacatccacg | tatctgcacc | atgatgat | 3540 |
| gacacgcca | taccccccat | ttcacatttt | gtcagaagt | catagttatc | actaactttg | 3600 |
| ccagtagaaa | tgtactccca | atttcccacg | gacttatctt | gaataatctc | tccactgaag | 3660 |
| cataacaggt | tttgaattct | gttagaata | ttgtttttac | tatcttttaa | ttttatacaa | 3720 |
| atttcaaagt | tacgtaatac | ttttatttta | aaagtgaaac | aaagcttttc | ctctctctta | 3780 |
| cccacatgtt | agtcacagc | aggggggaa | cattggcccc | aggccaaaat | cataaacgct | 3840 |
| ttcaattaac | taataataat | tgctggcatg | ttgccattaa | atattcttgt | ctcattatct | 3900 |
| ctggttgctt | tatcaaaacc | ataggtcact | gaagccactt | tttgagacaa | agactatttc | 3960 |
| tcccccaaaa | gtcaagggaa | atataaaaaa | tgaaattagt | gattaagaat | agaagtcaat | 4020 |
| taataacaatc | attttgtctt | aattatttta | agtccagttt | tttccctcca | gcaaacctga | 4080 |
| aaatacacta | tcttccagct | atcagaatta | tattgagatc | tactcacatt | tatgatgatg | 4140 |
| ttcagagatt | ctcattggga | aggaaaaggc | acacgctgcg | gcggtcttgc | atgactctgt | 4200 |
| tgttgtggaa | attcaatttg | ttcattgtgt | tttgggctct | ctgggtgggc | agggctgggc | 4260 |
| tctgggtcct | tggcaattcc | tcaggttccc | agcactccaa | agccaagctc | acctcctcat | 4320 |
| cacacaccct | acaggagaag | cattaggggtg | tccgactacg | tgggtttcat | agctgtggaa | 4380 |
| aagccaaagg | ggagactcct | gaagaaaggc | ggtgaagact | gtgaagagcg | ggtcagggaag | 4440 |
| atgagcacag | cactgttact | cctgtgggca | caggacagc | atgtctccag | ccagcgccac | 4500 |
| cttgtttaat | acatgggaac | tcactgaaat | tcattctgta | ttttgcccgc | aaagttttaa | 4560 |
| agctttcatt | cacagtcagg | aattaaactt | ataccaatga | gagcctcaca | cattcaagga | 4620 |
| tgtactaagc | actacaggcc | tcacagaaac | agagatccca | tcttgagatt | ttcagtacca | 4680 |
| catgggagat | aaagggtttt | gaacatgaaa | tgacaaaaac | aacagcaaga | agaaaattct | 4740 |
| tgctcttttt | cattactatc | agactcaaatt | aaatgtcttg | gctcttacat | tacattcatt | 4800 |
| cttcaaccat | tgtgggtctg | cttccacttc | cttcacttca | ccaacatggc | tctgccaaag | 4860 |
| gaagcccgtg | atctctaggg | catcacttta | attgatcttt | ctacaacatt | tatcctgggt | 4920 |
| gttaagccct | ccttacaaca | ttcttctctc | tttgttttta | tagctccatc | tctcctgctt | 4980 |
| ctttaacttg | ataatgcata | cttgattttt | ctatttggtt | tttcataaac | caattaatac | 5040 |
| acagataaaa | tgactgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 5100 |
| tctcatatgt | aattagttct | attaacata | ttaattgtat | tgttttaatt | gtcagggttt | 5160 |
| tgacagaatt | ttgtttacaa | gtaataaaaa | ttttatctcc | aattttcaat | aattacaccc | 5220 |
| attattttctg | ttttatgtct | cattgcattg | atgagatctt | gcagaataat | tttaaaacag | 5280 |

| | | | | | | |
|------------|-------------|------------|------------|--------------|-------------|------|
| tagtgggtat | tttctgcttt | taatgggtat | gtctagtatt | tcatatatattg | ttgctttatag | 5340 |
| aacactattc | aaccaagaca | tgtcaagact | agttgtctct | caaaccatta | gtattttatat | 5400 |
| tattcctttc | cagctacact | tgtaggatgt | aaaagaccat | ttccaggaat | atggaactgt | 5460 |
| tttactaggt | ggagggtata | tataaccata | taatagtcac | agaaactaca | ttaatactca | 5520 |
| cataaatcaa | agcataaatg | acatagaatc | ttggcagatt | tgcttaaggt | taaatgtata | 5580 |
| actcttatca | gcaggaggtg | aaagaatata | ttcttagata | cttggcacat | ttagaaaata | 5640 |
| taatctaata | ttcttttttaa | agaataggcc | gggcacggtg | gctcacacct | gtaatcccag | 5700 |
| cacttttgga | ggccaaggcg | ggcggatcac | gaggtcagga | gatcgagacc | atcctggcta | 5760 |
| acacggtgaa | accccgctct | tactaaaaat | acaaaaaatt | agctgggctg | ggtggcgggc | 5820 |
| acctgtagtc | ccagctactc | aggaggctga | ggcaggagaa | cggcatgaac | ccgggaggtg | 5880 |
| gagcttgtag | tgagccgaga | tcgcgccact | gcactccagc | ctgggcgaaa | gagcgagact | 5940 |
| ctgtctcaaa | aaaaaaaaaa | aaaaagaata | aataaaa | | | 5977 |

<210> 12555
 <211> 640
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|-----|
| <400> 12555 | | | | | | |
| aaattgtaag | cggttaatatt | ttgttaaaaat | tcgcgttaaaa | tttttggttaa | atcagctcat | 60 |
| tttttaacca | ataggccgaa | atcggcacaaa | tcctttataa | atcaaaaagaa | tagaccgaga | 120 |
| taggggttag | tggtgttcca | gtttggaaca | agagtccact | attaaagaac | gtggactcca | 180 |
| acgtcaaagg | gcgaaaaacc | gtctatcagg | gcgatggccc | actacgtgaa | ccatcacct | 240 |
| aatcaagttt | tttggggctg | aggtgcccga | aagcactaaa | tcggaaccct | aaagggagcc | 300 |
| cccgatattag | agcttgacgg | ggaaagccgg | cgaacgtggc | gagaaagsaa | gggaagaaag | 360 |
| cgaagaggagc | gggcgctagg | gcgctggcaa | gtgtagcggc | cacgctgctg | gtaaccacca | 420 |
| cacccgccgc | gcttaatgct | ccgytacagg | gcgcgtccat | tcgccattca | ggctgcgcaa | 480 |
| ctgttgggaa | gggcgatcgg | tgccgggctc | ttcgctatta | cgccagctgg | cgaagggggg | 540 |
| atgtgctgca | aggcgattaa | ggtgggtaac | gccagggttt | tcccagtcac | gacgttgtaa | 600 |
| aacgacggcc | agtgaattgt | aatacagctc | actatagggc | | | 640 |

<210> 12556
 <211> 640
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|-----|
| <400> 12556 | | | | | | |
| aaattgtaag | cggttaatatt | ttgttaagat | tcgcgttaaaa | tttttggttaa | atcagctcat | 60 |
| tttttaacca | ataggccgaa | atcggcacaaa | tcctttataa | atcaaaaagaa | tagaccgaga | 120 |
| taggggttag | tggtgttcca | gtttggaaca | agagtccact | attaaagaac | gtggactcca | 180 |
| acgtcaaagg | gcgaaaaacc | gtctatcagg | gcgatggccc | actacgtgaa | ccatcacct | 240 |
| aatcaagttt | tttggggctg | aggtgcccga | aagcactaaa | tcggaaccct | aaagggagcc | 300 |
| cccgatattag | agcttgacgg | ggaaagccgg | cgaacgtggc | gagaaaggaa | gggaagaaag | 360 |
| cgaagaggagc | gggcgctagg | gcgctggcaa | gtgtagcggc | cacgctgctg | gtaaccacca | 420 |
| cacccgccgc | gcttaatgct | ccgctacagg | gcgcgtccat | tcgccattca | ggctgcgcaa | 480 |
| ctgttgggaa | gggcgatcgg | tgccgggctc | ttcgctatta | cgccagctgg | cgaagggggg | 540 |
| atgtgctgca | aggcgattaa | ggtgggtaac | gccagggttt | tcccagtcac | gacgttgtaa | 600 |
| aacgacggcc | agtgaattgt | aatacagctc | actatagggc | | | 640 |

<210> 12557
 <211> 571
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|-------------|-----|
| <400> 12557 | | | | | | |
| aataggccga | aatcgacaaa | atcccttata | aatcaaaaaga | atagaccgag | ataggggttga | 60 |
| gtgttggtcc | agtttggaac | aagagtccac | tattaaagaa | cgtggactcc | aacgtcaaag | 120 |
| ggcgaaaaac | cgtctatcag | ggcgatggcc | cactacgtga | accatcacc | taatcaagtt | 180 |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|------------|-----|
| ttttgggggtc | gaggtgccgt | aaagcactaa | atcgggaaccc | taaagggagc | ccccgattta | 240 |
| gagcttgacg | gggaaagccg | gcgaacgtgg | cgagaaagga | aggggaagaaa | gcgaaaggag | 300 |
| cgggcgctag | ggcgctggca | agtgtagcgg | tcacgctgcg | cgtaaccacc | acacccgccg | 360 |
| cgcttaatgc | gccgctacag | ggcgcggtcca | ttcgccattc | aggctgcgca | actgttggga | 420 |
| agggcgatcg | gtgcgggcct | cttcgctatt | acgccagctg | gcgaaagggg | gatgtgctgc | 480 |
| aaggcgatta | agttgggtaa | cgccagggtt | ttcccagtc | cgacgttgta | aaacgacggc | 540 |
| cagtgaattg | taatacgact | cactataggg | c | | | 571 |

<210> 12558

<211> 640

<212> DNA

<213> Homo sapiens

<400> 12558

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| aaattgtaag | cgtaaatatt | ttgttaaaat | tcgcgttaaa | tttttgttaa | atcagctcat | 60 |
| tttttaacca | ataggccgaa | atcggcaaaa | tcccttataa | atcaaaagaa | tagaccgaga | 120 |
| tagggttgag | tggtgttcca | gttttgaaca | agagtccact | attaaagaac | gtggactcca | 180 |
| acgtcaaagg | gcgaaaaacc | gtctatcagg | gcgatggccc | actacgtgaa | ccatcacctt | 240 |
| aatcaagttt | tttggggtcg | aggtgccgta | aagcactaaa | tcggaaccct | aaagggagcc | 300 |
| cccgatattag | agcttgacgg | ggaaagccgg | cgaacgtggc | gagaaaggaa | gggaagaaag | 360 |
| cgaaaggagc | gggcgctagg | gcgctggcaa | gtgtagcggg | cacgctgcg | gtaaccacca | 420 |
| cacccgccgc | gcttaatgcg | ccgctacagg | gcgcgtccat | tcgccattca | ggctgcgcaa | 480 |
| ctgttgggaa | gggcgatcgg | tgccggcctc | ttcgctatta | cgccagctgg | cgaaaggggg | 540 |
| atgtgctgca | agggcattaa | gttgggtaac | gccagggttt | tcccagtcac | gacgttgtaa | 600 |
| aacgacggcc | agtgaattgt | aatacgactc | actatagggc | | | 640 |

<210> 12559

<211> 639

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (88)

<223> n equals a,t,g, or c

<400> 12559

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|-----|
| aattgtaagc | gttaaatattt | tgtaaaaatt | cgcgtaaaat | ttttgttaaa | tcagctcatt | 60 |
| ttttaaccaa | taggccgaaa | tcggcaaanat | cccttataaa | tcaaaagaat | agaccgagat | 120 |
| aggggttgagt | gttgttccag | tttggaaacaa | gagtcacta | ttaaagaacg | tggactccaa | 180 |
| cgtcaaaggg | cgaaaaaccg | tctatcaggg | cgatggccca | ctacgtgaac | catcacctta | 240 |
| atcaagtttt | ttgggggtcga | ggtgccgtaa | agcactaaat | cggaacccta | aaggagagccc | 300 |
| ccgatattaga | gcttgacggg | gaaagccggc | gaacgtggcg | agaaaggaag | ggaagaaagc | 360 |
| gaaaggagcg | ggcgctaggg | cgctggcaag | tgtagcggtc | acgctgcgcg | taaccaccac | 420 |
| acccgccgcg | cttaatgcgc | cgctacaggg | cgcgctccatt | cgccattcag | gctgcgcaac | 480 |
| tggtgggaag | ggcgatcggg | gcgggcctct | tcgctattac | gccagctggc | gaaaggggga | 540 |
| tgtgctgcaa | ggcgattaaag | ttgggtaacg | ccagggtttt | cccagtcacg | acgttgtaaa | 600 |
| acgacggcca | gtgaattgta | atacgactca | ctatagggc | | | 639 |

<210> 12560

<211> 648

<212> DNA

<213> Homo sapiens

<400> 12560

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|------------|-----|
| gcacgcaggma | attgtaagcg | ttaatattttt | gttaaaaattc | gcgttaaaatt | tttgttaaat | 60 |
| cagctcattt | tttaaccaat | aggccgaaat | cggcaaaatc | ccttataaat | caaaagaata | 120 |
| gaccgagata | gggttgagtg | ttgttccagt | ttggaacaag | agtccactat | taaagaacgt | 180 |

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| ggactccaac | gtcaaagggc | gaaaaaccgt | ctatcagggc | gatggccccc | tacgtgaacc | 240 |
| atcaccctaa | tcaagttttt | tgggggtcgag | gtgccgtaaa | gcactaaatc | ggaaccctaa | 300 |
| agggagcccc | cgatttagag | cttgacgggg | aaagccggcg | aacgtggcga | gaaaggaagg | 360 |
| gaagaaagcg | aaaggagcgg | gcgctagggc | gctggcaagt | gtagcgggtca | cgctgcgcgt | 420 |
| aaccaccaca | cccgcgcgc | ttaatgcgcc | gctacagggc | gcgtccattc | gccattcagg | 480 |
| ctgcgcaact | gttggaaggg | gcgatcggtg | cgggcctctt | cgctattacg | ccagctggcg | 540 |
| aaagggggat | gtgctgcaag | gcgattaagt | tgggtaacgc | caggggttttc | ccagtcacga | 600 |
| cgttgtaaaa | cgacggccag | tgaattgtaa | tacgactcac | tatagggc | | 648 |

<210> 12561
 <211> 624
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|------------|------------|-----|
| <400> 12561 | | | | | | |
| tattttgtta | aaattcgcgt | taaatTTTTTg | ttaaaccagc | tcatttttta | accaataggg | 60 |
| ggaaatcggc | aaaatccctt | ataaatcaaa | agaatagacc | gagataggg | tkagtgttgt | 120 |
| tccagtttgg | aacaagagtc | cactattaaa | gaacgtggac | tccaacgtca | aagggcgaaa | 180 |
| aaccgtctat | cagggcgatg | gcccactacg | tgaaccatca | ccctaataca | gttttttggg | 240 |
| gtcgaggtgc | cgtaaagcac | taaatcgga | ccctaaagg | agccccgat | ttagagcttg | 300 |
| acggggaaaag | ccggcgaacg | tggcgagaaa | ggaaggggaag | aaagcgaaag | gagcgggcgc | 360 |
| tagggcgctg | gcaagtgtag | cggtcacgct | gcgcgtaacc | accacacccg | ccgcgcttaa | 420 |
| tgcgcgcgta | cagggcgcg | ccattcgcca | ttcaggctgc | gcaactgttg | ggaagggcga | 480 |
| tcggtgcggg | cctcttcgct | attacgccag | ctggcgaaaag | ggggatgtgc | tgcaaggcga | 540 |
| ttaagttggg | taacgccagg | gttttcccag | tcacgacgtt | gtaaaacgac | ggccagtgaa | 600 |
| ttgtaatacg | actcactata | gggc | | | | 624 |

<210> 12562
 <211> 509
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12562 | | | | | | |
| gttgttccag | tttgaacaa | gagtcacta | ttaaagaacg | tggactccaa | cgtcaaaggg | 60 |
| cgaaaaaccg | tctatcaggg | cgatggccca | ctacgtgaac | catcacccca | atcaagtttt | 120 |
| ttggggctga | ggtgccgtaa | agcactaaat | cggaacccta | aaggagagcc | ccgatttaga | 180 |
| gcttgacggg | gaaagccggc | gaacgtggcg | agaaaggaag | ggaagaaagc | gaaaggagcg | 240 |
| ggcgctaggg | cgctggcaag | tgtagcggtc | acgctgcgcg | taaccaccac | acccgccgcg | 300 |
| cttaatgcgc | cgctacaggg | cgcgtccatt | cgccattcag | gctgcgcaac | tgttggaag | 360 |
| ggcgatcgg | gcgggcctct | tcgctattac | gccagctggc | gaaaggggga | tgtgctgcaa | 420 |
| ggcgattaag | ttgggtaacg | ccagggtttt | cccagtcacg | acgttgtaaa | acgacggcca | 480 |
| gtgaattgta | atacgactca | ctatagggc | | | | 509 |

<210> 12563
 <211> 654
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|------------|-------------|-----|
| <400> 12563 | | | | | | |
| aaatacgc | caggaaattg | taagcggttaa | tattttgtta | aaattcgcgt | taaatTTTTTg | 60 |
| ttaaatcagc | tcatttttta | accaataggg | cgaaatcggc | aaaatccctt | ataaatcaaa | 120 |
| agaatagacc | gagataggg | tgagtgttgt | tccagtttgg | aacaagagtc | cactattaaa | 180 |
| gaacgtggac | tccaacgtca | aagggcgaaa | aaccgtctat | cagggcgatg | gcccactacg | 240 |
| tgaaccatca | ccctaataca | gttttttggg | gtcgaggtgc | cgtaaagcac | taaatcgga | 300 |
| ccctaaagg | agccccgat | ttagagcttg | acggggaaaag | ccggcgaacg | tggcgagaaa | 360 |
| ggaaggggaag | aaagcgaaag | gagcgggcgc | tagggcgctg | gcaagtgtag | cggtcacgct | 420 |
| gcgcgtaacc | accacacccg | ccgcgcttaa | tgcgcgcgta | cagggcgcg | ccattcgcca | 480 |
| ttcaggctgc | gcaactgttg | ggaagggcga | tcggtgcggg | cctcttcgct | attacgccag | 540 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctggcgaaag | ggggatgtgc | tgcaaggcga | ttaagttggg | taacgccagg | gttttcccag | 600 |
| tcacgacgtt | gtaaaacgac | ggccagtgaa | ttgtaatacg | actcactata | gggc | 654 |

<210> 12564
 <211> 546
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (20)
 <223> n equals a,t,g, or c

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 12564 | | | | | | |
| ttataaatca | aaagaatagn | ccgagatagg | gttgagtgtt | gttccagttt | ggaacaagag | 60 |
| tccactatta | aagaacgtgg | actccaacgt | caaagggcga | aaaaccgtct | atcagggcga | 120 |
| tggcccacta | cgtgaacat | caccctaata | aagttttttg | gggtcagagt | gccgtaaagc | 180 |
| actaaatcgg | aaccctaaag | ggagcccccg | atttagagct | tgacggggaa | agccggcgaa | 240 |
| cgtggcgaga | aaggaaggga | agaaagcgaa | aggagcgggc | gctagggcgc | tggcaagtgt | 300 |
| agcggtcacg | ctgcgcgtaa | ccaccacacc | cgccgcgctt | aatgcgccgc | tacagggcgc | 360 |
| gtccattcgc | cattcaggct | gcgcaactgt | tgggaagggc | gatcgggtgc | ggcctcttcg | 420 |
| ctattacgcc | agctggcgaa | agggggatgt | gctgcaaggc | gattaagtgt | ggtaacgcca | 480 |
| gggttttccc | agtcacgacg | ttgtaaaacg | acggccagtg | aattgtaata | cgactcacta | 540 |
| tagggc | | | | | | 546 |

<210> 12565
 <211> 654
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|-----|
| <400> 12565 | | | | | | |
| aataccgcat | caggaaattg | taagcgtaa | tattttgtta | aaattcgcgt | taaattttttg | 60 |
| ttaaatacgc | tcatttttta | accaataggc | cgaaatcggc | aaaatccctt | ataaatcaaaa | 120 |
| agaatagacc | gagataggg | tgagtgttgt | tccagttttg | aacaagagtc | cactattaaa | 180 |
| gaacgtggac | tccaacgtca | aagggcgaaa | aaccgtctat | cagggcgatg | gccactacg | 240 |
| tgaaccatca | ccctaataca | gttttttggg | gtcgaggtgc | cgtaaagcac | taaatcgga | 300 |
| ccctaagggg | agccccgat | ttagagcttg | acggggaaaag | ccggcgaaacg | tggcgagaaa | 360 |
| ggaaggggaag | aaagcgaaag | gagcggggcgc | tagggcgctg | gcaagtgtag | cggtcacgct | 420 |
| gcgcgtaacc | accacaccgc | ccgcgcttaa | tgcgccgcta | cagggcgcgct | ccattcgcca | 480 |
| ttcaggctgc | gcaactgttg | ggaagggcga | tcgggtgcggg | cctcttcgct | attacgccag | 540 |
| ctggcgaaag | ggggatgtgc | tgcaaggcga | ttaagttggg | taacgccagg | gttttcccag | 600 |
| tcacgacgtt | gtaaaacgac | ggccagtgaa | ttgtaatacg | actcactata | gggc | 654 |

<210> 12566
 <211> 327
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 12566 | | | | | | |
| acgtgcacgt | cagagcgggtg | gccccacctg | aagtaatccc | cctttcccct | gagaggaggc | 60 |
| ccgtgggtgga | gtgttacaat | acggttatgg | tcttaccatg | cgatacaaga | agacactcat | 120 |
| tgtctcacat | ctttcacagc | cagctcaatg | acatcacaca | cagcacccaa | ggtcttcgaa | 180 |
| cttgatttca | aaatcatata | ccattaattc | aaattaactt | attaagtcag | ctgggaaaaa | 240 |
| ccttaatacc | ttaatacatg | ttctacaata | tttaagttac | tggtgtaggt | tttcatatag | 300 |
| actgaaaata | agacacacta | ctgcaaa | | | | 327 |

<210> 12567

<211> 327
 <212> DNA
 <213> Homo sapiens

<400> 12567
 acgtgcacgt cagagcgggtg gcccaacctg aagtaatccc cctttcccct gagaggagggc 60
 ccgtgggtgga gtgtttacaat acgggttatgg tcttaccatg cgatacaaga agacactcat 120
 tgtctcacat ctttcacagc cagctcaatg acatcacaca cagcacccaa ggtcttcgaa 180
 cttgtattca aaatcataca ccattaattc aaattaactt attaagtcag ctgggaaaaa 240
 ccttaatatc ttaatacatg ttctacaata ttttaagttac tgttgtaggt tttcatatag 300
 actgaaaata agacacacta ctgcaaa 327

<210> 12568
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 12568
 ctcttagaag tttacccaag agaatttcaa gtggatgtcc atacacaaac ttgtatggaa 60
 atgtccatta gcaatttcac ttgcatagtc aaaaactgga aacagcccaa acattcatca 120
 acagaaaaat ggatgaacaa attgcatattg tttatcttaa gatactattc aacaatttaa 180
 aagaataaac tattgataca tgcaacgt 208

<210> 12569
 <211> 4702
 <212> DNA
 <213> Homo sapiens

<400> 12569
 gtgccaatgt tggccagtcg cgggtggttca cgcctgtaat cccagcactt tgggaggetg 60
 aggtgggtgg atcacgaggt caggagattg agaccatcct ggctaacacg gtgaaacccc 120
 atctctacta aaaatacaaa aaaattagcc gggcatgggt gcagacacct gtagtcccag 180
 ctactcggga ggctgaggca ggagaatggg gtgaaccccg gaggcggagc ttgcaatgag 240
 ctgagattgt gccactgcat tccagcctgg gcgatagagc gagactccat ctcaaataaa 300
 taaataaata aatagtgcc aatgttatgac cagaggcagc aaggcctgac acagcatcca 360
 aggccagtct gggcacctgc tcttttgac attaatataa taagctttaa caagaaatac 420
 atgttaactt tctcaggatc aaaggattca gaaggctatt ttgctctcat tttatcctta 480
 ggcttcagca gaagaaacac ttctataaaa tctcgcccaa acaggaaagg taagtggcct 540
 aaaatTTTTT tagtattttt aaaatgaccc agttacaata ggaaatttct tcttgacta 600
 ttgtcactaa tcccgactca atatccttta aaggacaaag atgcatgcat aagtaaaaaat 660
 atgacaggtc acaatcacgc cggggtgggt ctggggcgag gcccaagttc cctgcacgca 720
 ccggcacaag cagcacact gtgatgggga ggacgtttac gtaccatgtc cacaccactc 780
 cagacttggt gagegccagt aggaactgag ctccacactc aatctggcac accccctgtc 840
 catttagtct ctcaatgttc tggggaatgt tgcagccttc acttcgccc cggcccaatt 900
 ttccaaagtc accatcacc caggaaaata ccaaactag gtttaaaaat aggggaaggga 960
 aggggaaggga gagaagaaag gaaagataaa gaaagcccaa cctccttcca aaatgtcatg 1020
 agaactctga gcacatatgg tccttggtcat gaccacatga cctgcagagc ccctgttata 1080
 gaactcattt ttatatTTTT cttagtataa cagttaatgt aatatgtcat ttttgttaat 1140
 agtgtctttt tgtcatttta ctttttaaaa gattgtattg aaatatacat acaggaaagt 1200
 gcatctatca taagtgtgca aattgatgaa ttctaaaatc tttattgtac ctgttttagca 1260
 cctagattga cactgaacat aactaacaac cagaaatctc cgtgtactcc cttcctgtaa 1320
 ctacccctgc gcccgaccaa atcactctct tctaacagca taactttgtg tgactagctt 1380
 ttttaatgta aaagaatgaa atctacagca tgtattcatt tgcactctggc ttctgccacc 1440
 caacattata tttgtgggat tcatttgcag agttgcata tagtttgcag atccctcact 1500
 ctcttttcta tatggtatta tattgcataa acgtaccaca ctttatctaa ctactgttaa 1560
 atatttgtgc atcttctact tgggggcat ttcaaatagt gctgctatga acattcttgt 1620
 aaatgtcttt tgggtgaacat atgcaacaca tatatgcgtt gttgttggtt cccaggaggg 1680
 gcattcctgg gtcataaaca atgcatgtgt tcaggtttag tatggtataa tgccaaacag 1740
 gtttccaaag tgtttgtgcc actttacata cccgccatta ttgaaaaaga gttctgtttg 1800

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atattgcaat | gtgggtttta | tttgcactct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccacttgg | aaatgtgatt | taaattcata | taaagatata | gtagcaaaac | 1980 |
| acatagtaag | ttactttcat | atccagaaag | tttagataga | atgatttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagtcca | tgaatattga | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caatattttt | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttcaggt | attttgtatg | gttccagcag | 2220 |
| tcagttaggt | tgccattggt | tggaagcaca | catccacgta | tctgcaccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgca | tagttatcac | taactttgcc | 2340 |
| agtagaaaat | tactcccaat | ttcccacaga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacaggttt | tgaatctgt | tagaatagtt | gtttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtaatactt | ttatttataa | agtgaaacaa | agcttttctt | ctcccttacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggccccag | gccaaaatca | taaacgcttt | 2580 |
| caattaacta | ataataattg | ctggcatggt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggtcactga | agcccacttt | tgagacaaag | actattttct | 2700 |
| ccccaaaagt | caaggggaaat | ataaaaagtg | aaatttagtga | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaaag | tccagttttt | ttcctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatggt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggctcttga | tgactctggt | 2940 |
| gtggaaaattc | aatttcttca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggtccttggc | aattcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgccctgcag | gagaagcatc | aggggtgtccg | actacgtggg | tttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactcctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaaattcat | tctgtatttt | gccacaaaag | ttttaaagct | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccatctt | ggagttttca | gtcccacatg | 3420 |
| ggagataaag | ggttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctctgc | 3480 |
| ctttttcatt | actatcaaac | tcaaataaat | gtcttgctc | ttacattaca | ttcattcttc | 3540 |
| aaccattgtg | gtctggcttc | cacttccttc | acttccacaa | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | acttttaattg | atctctctac | aacattttatc | ctggctggtta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atttttccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggtatgcc | 3840 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | atcagggtttt | 3900 |
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattattt | tctgttttat | gtctcattgc | attggtgaga | tcttgcagaa | taatttttaga | 4020 |
| acagtatggg | gtattttcta | cttttaattg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | attcaaccac | gacatgtcaa | gactagtgtg | ctctcaaacc | attagtattt | 4140 |
| atattattcc | tttccagcta | cattttgtggg | atgtaaaaga | ccatttccag | gaatatggaa | 4200 |
| ctgttttact | aggtggaggg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | agggttaaatg | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatatcttta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggccggggcac | ggtggctcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcgggcgga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaaaccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgcctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccaggga | 4620 |
| ggtggagctt | gcagtgagcc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactccgtct | caaacaacaa | aa | | | | 4702 |

<210> 12570

<211> 4721

<212> DNA

<213> Homo sapiens

<400> 12570

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|-----|
| gtgccaatgt | tggccagtcg | cggtgggttca | cgctgtaat | cccagcactt | tgggaggctg | 60 |
| agggtgggtg | atcacgaggt | caggagattg | agaccatcct | ggctaacacg | gtgaaacccc | 120 |
| atctctacta | aaaatacaaa | aaaattagcc | gggcatgggtg | gcagacacct | gtagtcccag | 180 |
| ctactcggga | ggctgaggca | ggagaatggt | gtgaacccccg | gaggcggagc | ttgcaatgag | 240 |

| | | | | | | |
|------------|-------------|-------------|-------------|------------|-------------|------|
| ctgagattgt | gccactgcat | tccagcctgg | gcatagagac | gagactccat | ctcaaataaa | 300 |
| taaataaata | aatagtgcc | atgttatgac | cagaggcagc | aaggcctgac | acagcatcca | 360 |
| agggcagtc | gggcacctgc | tcttttgcac | attaatataa | taagctttaa | caagaaatac | 420 |
| atgttaactt | tctcaggatc | aaaggattca | gaaggctatt | ttgctctcat | tttatcctta | 480 |
| ggcttcagca | gaagaaacac | tctctataaa | tctcgcccaa | acaggaaagg | taagtggcct | 540 |
| aaaatttttc | tagtattttc | aaaatgaccc | agttacaata | ggaaatttct | tcttgacta | 600 |
| ttgtcactaa | tcccagactca | atatccttta | aaggacaaag | atgcatgcat | aagtaaaaaat | 660 |
| atgacaggtc | acaatcacgc | cggggtggtc | ctggggcgag | gccaagttc | cctgcacgca | 720 |
| ccggcacaag | cacgcacact | gtgatgggga | ggacgtttac | gtaccatgtc | cacaccactc | 780 |
| cagacttggc | gagcgccagt | aggaactgag | ctccacactc | aatctggcac | acccctgtc | 840 |
| catttagtct | ctcaatgttc | tggggaatgt | tgcagccttc | acttccgccc | cggcccaatt | 900 |
| ttccaaagtc | accatacccc | caggaaaata | ccaaacctag | gtttaaaaat | agggaaagga | 960 |
| agggaaagga | gagaagaaaag | gaaagataaa | gaaagcccaa | cctccttcca | aaatgtcatg | 1020 |
| agaatcttga | gcacatatgg | tccttggcat | gaccacatga | cctgcagagc | ccctgttata | 1080 |
| gaactcattt | ttatattttc | cttagtataa | cagttaatgt | aatatgtcat | ttttgttaat | 1140 |
| agtgtctttt | tgtcatttta | ctttttaaaa | gattgtattg | aaatatacat | acaggaaagt | 1200 |
| gcatctatca | taagtgtgca | aattgatgaa | ttctaaaatc | tttattgtac | ctgttttagca | 1260 |
| cctagattga | cactgaacat | aactaacaac | cagaaatctc | cgtgtactcc | cttcctgtaa | 1320 |
| ctacccctgc | gcccagacaa | atcactctct | tctaacagca | taactttgtg | tgactagctt | 1380 |
| ttttaatgta | aaagaatgaa | atctacagca | tgtattcatt | tgcatctggc | ttctgccacc | 1440 |
| caacattata | tttgtgggat | tcattttgtac | agttgcata | tagtttgcag | atccctcact | 1500 |
| ctcgtttcta | tatggatatta | tattgcataa | acgtaccaca | ctttatctaa | ctactgttaa | 1560 |
| atatttgtgc | atcttctact | tgggggcaat | ttcaaatagt | gctgctatga | acattcttgt | 1620 |
| aaatgtcttt | tggatgaacat | atgcaacaca | tatatgcgtt | gttgttgggt | cccaggaggg | 1680 |
| gcatttctgg | gtcataaaca | atgcatgtgt | tcaggttttag | tatggtataa | tgccaaacag | 1740 |
| gtttccaaag | tgtttgtgcc | actttacata | cccgccatta | ttgaaaaaga | gttctgtttg | 1800 |
| ctccacattt | tcaccaatac | ttgatatttt | gttttttttt | cttttaaacc | gtactagtgg | 1860 |
| gtgtgcagtg | atattgcaat | gtggttttaa | tttgcactct | ccttgtgaca | aattaacctt | 1920 |
| gattactgta | agccacttgg | aaatgtgatt | taaattcata | taaagatata | gtagcaaac | 1980 |
| acatagtaag | ttactttcat | atccagaaag | tttagataga | atgatttcta | tgtaagcttt | 2040 |
| tactgtgtag | tctgagtcga | tgaatatgta | ttacaaaaaa | cacatctgta | ggtgagttac | 2100 |
| aatacctcac | ttataattca | aaattcatgt | tgtgttagct | caatatTTTT | caaataattt | 2160 |
| ttgcatgcaa | ttttcacctt | ctttctgagt | agtttcaggt | atTTTgtatg | gttccagcag | 2220 |
| tcagtttagt | tgccattggt | tgggaagcaca | catccacgta | tctgcaccat | gatgatatga | 2280 |
| cacgcccata | ccccccattt | cacattttgt | cagaagtgca | tagttatcac | taactttgcc | 2340 |
| agtagaaatg | tactcccaat | ttcccacgga | cttatcttga | ataatctctc | cactgaagca | 2400 |
| taacagggtt | tgaattctgt | tagaatagtt | gttttttacta | tcttttaatt | ttatacaaat | 2460 |
| ttcaaagtta | cgtaataactt | ttattttaaaa | agtgaacaaa | agcttttctc | ctcccttacc | 2520 |
| cacatgttag | cccagcagag | ggggaaagca | ttggccccag | gccaaaatca | taaacgcctt | 2580 |
| caattaacta | ataataattg | ctggcatggt | gccattaaat | atccttgtct | cattatccct | 2640 |
| ggttgcttca | tcagacccat | aggctactga | agccactttt | tgagacaaag | actatttctc | 2700 |
| ccccaaaagt | caagggaat | ataaaaagt | aaattagtga | ttaagcatag | aagtcaatta | 2760 |
| atacaatcat | tttgtcttaa | ttattttaag | tccagttttt | ttctccagc | aaacctgaaa | 2820 |
| atacactatc | ctccagctat | cagaattata | ttgagatcta | ctcacattta | tgatgatggt | 2880 |
| cagagattca | tcattgggaa | ggaaaatgca | cacgctgcgg | cggctcttga | tgactctgtt | 2940 |
| gtggaaatc | aatttgttca | ttgtgttttg | ggctctctgg | gtggtcaggg | ctgggctctg | 3000 |
| ggctcctggc | aattcctcag | gttcccagca | ctccaaagcc | aagctcacct | cctcatcaca | 3060 |
| cgcctgcag | gagaagcatc | agggtgtccg | actacgtggg | ttcatagct | gtggaaaagc | 3120 |
| caaaggggag | actcctgaag | aaaggcgggtg | aagactgtga | agagcgggtc | aggaagatga | 3180 |
| gcacagcact | gctactcctg | tgggcacagg | gacagcatgt | ctccagccag | cgccaccttg | 3240 |
| tttaatacat | gggaactcac | tgaattcat | tctgtatttt | gcccgcgaag | ttttaagct | 3300 |
| ttcatccaca | gtcaggaatt | aaacttatac | caatgagagc | ctcacacatt | caaggatgta | 3360 |
| ctaagcacta | caggcctcac | agaaacagag | atcccatctt | ggagttttca | gtcccatatg | 3420 |
| ggagataaag | ggttttgaac | atgaaatgac | aaaaacaaca | gcaagaagaa | aattctctgc | 3480 |
| ctttttcatt | actatcaaac | tcaaataaat | gtcttggctc | ttacattaca | ttcattcttc | 3540 |
| aaccatttgt | gtctggcttc | cacttctctc | acttaccaca | catggctctg | ccaaaggaag | 3600 |
| cctgtgatct | ctaggccatc | actttaattg | actctctac | aacatttata | ctggctgtta | 3660 |
| agccctcctt | acaacattct | tctctctttg | tttttatggc | tctgtctctc | ctgcttcttt | 3720 |
| aacctgataa | tgcatacttg | atTTTTccat | ttattatttc | atcaaccaat | taatacacag | 3780 |
| ataaaacaag | actgtgtata | tcaaaccatg | tttgtataga | aaaaatggat | tttggatgcc | 3840 |
| tctcatatgt | aattagttct | attaaacata | ttaattgtat | tgtttaattt | atcagggtttt | 3900 |

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|------|
| tgacacagag | aattttgttt | gcaagtaata | aaaattttat | ctccaatttt | caataattac | 3960 |
| accattatt | tctgttttat | gtctcattgc | attggtgaga | tcttgcagaa | taattttaga | 4020 |
| acagtagtgg | gtattttcta | cttttaattg | gtgtgtctag | tatttcatat | attgttgctt | 4080 |
| atagaacact | attcaaccaa | gacatgtcaa | gactagtgtg | ctctcaaacc | attagtattt | 4140 |
| atattattcc | tttccagcta | catttgtggg | atgtaaaaga | ccatttccag | gaatatggaa | 4200 |
| ctgttttact | aggtggaggg | tatatataac | catacaatag | tcacagaaac | tacattaata | 4260 |
| ctcacataaa | tcaaagcata | aatgacatag | aatcttggca | gatttgctta | aggttaaatg | 4320 |
| tataactctt | atcagcagga | ggtgaaagaa | tatattctta | gatacttggc | acatttagaa | 4380 |
| aatataatct | aatattcttt | ttaaagaaca | ggcggggcac | ggtggctcac | gcctgtaatc | 4440 |
| ccagcacttt | gggaggccaa | ggcggggcga | tcacgaggtc | aggagatcca | gaccatcctg | 4500 |
| gataacacag | tgaaccccg | tctctaccaa | aaatacaaaa | aattatctgg | gcatgggtggc | 4560 |
| gggcgcctgt | agtcccagct | actcgggagg | ctgaggcagg | agaatggcgt | gaaccagga | 4620 |
| ggtggagctt | gcagtgcgc | gagatcacgc | cactgcactc | cggcctgggc | aaaagagcga | 4680 |
| gactccgtct | caaacaaaca | aacaaacaaa | taaataaata | a | | 4721 |

<210> 12571

<211> 5977

<212> DNA

<213> Homo sapiens

<400> 12571

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|------|
| aacagtaatg | gtaattttgt | tttcataaat | aaaattttta | attgaatata | tacaagccgg | 60 |
| tcatagcata | tgcttctcca | agcagaagag | agtgtaacac | ttgtcaggca | ctagctctgt | 120 |
| ctctaaaatg | aggcatgggt | gcctctctac | cagttagcaa | tttctaaag | caaagtcttg | 180 |
| ttaatacctt | gcagtaggag | catcttcaag | aataacaatc | ttttggccgg | gtgcggtggc | 240 |
| tcacgcctgt | aatcccagca | ctttgggagg | ccgaggcagg | tggatcacga | ggtcaggaga | 300 |
| tcgagaccac | ggtgaaaccc | cgtctctact | aaaaatacaa | aaaattagct | gggcgtgggtg | 360 |
| gcgggcgctt | gtagtcctcg | ctactcggga | ggctgaggca | ggagaatggc | atgaaccag | 420 |
| gaggcagaac | ttgcagttag | ccgagatcgc | gccactgcac | tccagcctgg | gcgacagagc | 480 |
| gagactctgt | ctcaaaaaaa | aaaaaaaaaa | aaaaggataa | caatctttcc | acacactttt | 540 |
| cacgtggact | tcagagtggg | aacgcctctt | ttctgaggac | cccgccccc | acccctgctg | 600 |
| ctgagtaggc | agatacacca | gcgggcaaaa | cggatgggtc | ccggcctcat | ggttcttcaa | 660 |
| gcagtaagac | tcggctgagt | tcatacaac | ctgtgatctt | aacaggacga | gggccatgtc | 720 |
| gtgaccccca | cgtcccccaa | gtcaggatgg | cacgccaccc | ccaggccacc | tgcagcctta | 780 |
| cctgccccga | gtccgtgacc | gccaggcagt | gcaggggccc | gacagccaca | tgcacgatct | 840 |
| tcttccctct | cagcccttcc | accacctaca | gtttccacac | gtgcacgtca | gagccctggc | 900 |
| gcaacctgaa | gtaatcccc | tttcccctga | gaaggaggcc | cgtggtggag | tggttacaata | 960 |
| tagttgtggt | ctgacaatgc | tatacaagaa | gacactcatt | gtctcacatc | tttcacagcc | 1020 |
| agctcaatga | catcacacac | agcacccaag | gtcttcgaac | ttgtattcaa | aatcatacac | 1080 |
| cattaattca | aattaactta | ttaagtcagc | tgggaaaaac | cttaatacct | taatacatgt | 1140 |
| tctacaatat | ttaagttact | gttgtagggt | ttcatataga | ctgaaaataa | gacacattac | 1200 |
| tgcaaacacc | tatccaaagt | cctatctggt | atacatcttt | ctcagagtgc | caatgtcggc | 1260 |
| cagtagcagt | ggttcacgcc | tgtaatccca | gcactttggg | aggccgaggc | gggtggatca | 1320 |
| caaggtcagg | agatcgagac | catcctggct | aacatggtga | aaccctatct | ctactaaaaa | 1380 |
| cacaaaaaaa | ttagccgggc | atggtggcag | acgcctgtag | tcccagctac | tcgggagggt | 1440 |
| gaggcaggag | aatggcgtga | acccgggaga | cggagcttgc | agtgaagtga | gattgtgcca | 1500 |
| ctgcattcca | gcctggggcg | cagagcgaga | ctccatctca | aataaataaa | taaataaata | 1560 |
| aataaatagt | gccaatgtta | tgaccagagg | cagcaaggcc | tgacacagca | tccaaggcca | 1620 |
| gtctggggcac | ctgctcattt | gcacattaat | ataataagct | tttacaagaa | atacatgtta | 1680 |
| actttctcag | gatcaaagga | ttcagaaggc | tattttgtct | tcattttatc | cttaggcttc | 1740 |
| agcagaagaa | acacttccta | ttaatctcgc | ccaaacagga | aaggtaagtg | gcctaaaatt | 1800 |
| tttctagtat | tttcaaaaat | acccagttac | aataggaaat | ttcttcttgt | actattgtca | 1860 |
| ctaataccga | ctcaatatcc | tttaaaggac | aaagatgcat | gcataagtaa | aaatatgaca | 1920 |
| ggtcacaaatc | acgccggggg | ggtcctgggg | cgaggcccaa | gttccctgca | cgcgtcggca | 1980 |
| caagcacgca | cactgtgacg | gggaggacgt | ttacgtacca | tgtccacacc | actccagact | 2040 |
| tggtgagcgc | cagttagaac | tgagctccac | actcaatctg | gcacaccccc | tgtccattta | 2100 |
| gtctctcaat | gttctggggg | atggttcagc | cttcacttcc | gccccggccc | aattttccaa | 2160 |
| agtcaccatc | accccaggaa | aataccaaac | ctaggtttta | aaatagggaa | gggaagggaa | 2220 |
| gggaagggaa | gggagagaag | aaaggaaaga | taaagaaagc | ccaacctcct | tccaaaatgt | 2280 |
| catgagaatc | ttgagcacat | atggtccttg | gcatgaccac | atgacctgca | gagccctgtg | 2340 |

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tatagaactc | atTTTTtatat | tttccttagt | ataacagtta | atataaatatg | tcattttttgt | 2400 |
| taatagtgtc | tttttgtcat | tttacttttt | aaaagatttt | attgaaatat | acatacagga | 2460 |
| aagtgcattc | atcataagtg | tgcaaattga | tgaattctaa | aatcttttatt | gtacctgttt | 2520 |
| agcacataga | ttgacactga | acataactaa | caaccagaaa | tctccgtgta | ctcccttctt | 2580 |
| gtaactaccc | ctgcgcccga | ccaaatcact | ctcttctaac | agcataactt | tgtgtgacta | 2640 |
| gcttttttaa | tgtaaaagaa | tgaaatctac | agcatgtatt | catttgcac | tggcttctgc | 2700 |
| cacccaacat | tatatTTgtg | ggattcattt | gtacagttgc | atattagttt | gcagatccct | 2760 |
| cactctcatt | tctatatggg | atttatattgc | ataaacgtac | cacactttat | ccaactactg | 2820 |
| ttaaatattt | gtgcattttt | tacttggggg | tgatttcaaa | tagtgctgct | atgaacattc | 2880 |
| ttgtaaatgt | cttttgggtg | acatatgcaa | cacatatatg | cgttgttgtt | ggttcccagg | 2940 |
| aggggcatgt | ctgggtcata | aacaatgcgt | gtgttcaggt | ttagtacagt | ataatgccaa | 3000 |
| acaggtttcc | aaagtgtttg | tgccactgtt | catacctgcc | attattgaaa | aagagtTctg | 3060 |
| tttgctccac | attgtcacca | atacttgata | ttttctgttt | tttttttctt | ttaaaccgta | 3120 |
| ctagtgggtg | tgcaagtata | ttgcaatgtg | gttttaattt | gcacttctct | tgtgacaacc | 3180 |
| ttgattactg | taagccactt | ggaaatgtga | tttaaattca | tataaagata | tagtagcaaa | 3240 |
| acgcatacta | ggttactttt | gtatccagaa | agtttagata | gaatgatttc | tatgtaagct | 3300 |
| tttactgtgt | agtctgagtc | catgaatatt | gattacaaaa | aacacatctg | taggtgagtt | 3360 |
| acaatacctc | acttataatt | ccaaattcat | gttgtgttag | ctcaatattt | ttcaataaat | 3420 |
| ttttgcatgc | aattttcacc | ttctttctga | gtagtctcag | gtattttgta | tggttccagc | 3480 |
| agtcagttag | gttgccattg | tttggaagca | cacatccacg | tatctgcacc | atgatgat | 3540 |
| gacagcccca | taccccccac | ttcacatttt | tcagaagtgc | catagttatc | actaaccttg | 3600 |
| ccagtagaaa | tgtactccca | atttcccacg | gacttatctt | gaataatctc | tccactgaag | 3660 |
| cataacaggt | tttgaattct | gttagaatag | ttgtttttac | tatcttttaa | ttttatacaa | 3720 |
| atttcaaagt | tacgtaatac | ttttatttaa | aaagtgaaac | aaagcttttc | ctctccttta | 3780 |
| cccacatgtt | agtccagcag | agggggaaag | cattggcccc | aggccaaaat | cataaacgct | 3840 |
| ttcaattaac | taataataat | tgctggcatg | ttgccattaa | atattctttg | ctcattatct | 3900 |
| ctggttgctt | tatcaaacc | ataggtcact | gaagcccat | tttgagacaa | agactatttc | 3960 |
| tccccaaaa | gtcaagggaa | atataaaaa | tgaaattagt | gattaagaat | agaagtcaat | 4020 |
| taatacaatc | atTTTgtctt | aattatttaa | agtcaggttt | tttccctcca | gcaaactga | 4080 |
| aaatacacta | tctctcagct | atcagaatta | tattgagatc | tactcacatt | tatgatgatg | 4140 |
| ttcagagatt | ctcattggga | aggaaaaggc | acacgctgcg | gcggtcttgc | atgactctgt | 4200 |
| tgTgtgtgaa | attcaatttg | ttcattgtgt | tttgggctct | ctgggtgggc | agggctgggc | 4260 |
| tctgggtcct | tggcaattcc | tcaggttccc | agcactccaa | agccaagctc | acctcctcat | 4320 |
| cacacaccct | acaggagaag | cattaggggtg | tccgactacg | tgggtttcat | agctgtggaa | 4380 |
| aagccaaagg | ggagactcct | gaagaaaggc | ggtgaagact | gtgaagagcg | ggtcaggaag | 4440 |
| atgagcacag | cactgctact | cctgtgggca | cagggacagc | atgtctccag | ccagcgccac | 4500 |
| cttgTttaat | acatgggaac | tcactgaaat | tcattctgta | ttttgcccgc | aaagtTttaa | 4560 |
| agctttcatc | cacagtcagg | aattaaactt | ataccaatga | gagcctcaca | cattcaagga | 4620 |
| tgtactaagc | actacaggcc | tcacagaaac | agagatccca | tcttggagtt | ttcagtagga | 4680 |
| catgggagat | aaagggtttt | gaacatgaaa | tgacaaaaac | aacagcaaga | agaaaattct | 4740 |
| tgTccttttt | cattactatc | agactcaa | aaatgtcttg | gctcttacat | tacattcatt | 4800 |
| cttcaaccat | tgtggtctgg | cttccacttc | cttcaactca | ccaacatggc | tctgccaaag | 4860 |
| gaagcccggtg | atctctaggg | catcacttta | attgatcttt | ctacaacatt | tatcctgggt | 4920 |
| gttaagccct | ccttacaaca | ttcttctctc | tttgTtttta | tagctccatc | tctcctgctt | 4980 |
| ctttaaacttg | ataatgcata | cttgattttt | ctatttTgta | tttcataaac | caattaatac | 5040 |
| acagataaaa | tgactgtata | tcaaaccatg | tttgatagata | aaaaatggat | tttggtatgcc | 5100 |
| tctcatatgt | aattagtTct | attaaacata | ttaattgtat | tgTtttaattt | gtcaggTttt | 5160 |
| tgacagaatt | ttgtttacaa | gtaataaaaa | ttttatctcc | aattttcaat | aattacaccc | 5220 |
| attatTttctg | ttttatgtct | cattgcattg | atgagatctt | gcagaataat | tttaaaacag | 5280 |
| tagtgggtat | tttctgcttt | taatgggtat | gtctagtatt | tcatatattg | ttgcttatag | 5340 |
| aacactattc | aaccaagaca | tgcaagact | agttgtctct | caaaccatta | gtatttatat | 5400 |
| tattcctttc | cagctacact | tgtaggatgt | aaaagaccat | ttccaggaat | atggaactgt | 5460 |
| tttactaggt | ggagggtata | tataaccata | taatagtcac | agaaactaca | tttaactca | 5520 |
| cataaatcaa | agcataaatg | acatagaatc | ttggcagatt | tgcttaagggt | taaatgtata | 5580 |
| actcttaata | gcaggagggtg | aaagaatata | ttcttagata | cttggcacat | ttagaaaata | 5640 |
| taattctaata | ttcttttttaa | agaataggcc | gggcacgggtg | gctcacacct | gtaatccag | 5700 |
| cactttggga | ggccaaggcg | ggcggatcac | agggtcagga | gatcgagacc | atcctgggcta | 5760 |
| acacggtgaa | accccgctctc | tactaaaaat | acaaaaaatt | agctggggcg | ggtggcgggc | 5820 |
| acctgtagtc | ccagctactc | aggaggctga | ggcaggagaa | cggcatgaac | ccgggagggtg | 5880 |
| gagcttgag | tgagccgaga | tcgcgccact | gcactccagc | ctgggcgaaa | gagcgagact | 5940 |
| ctgtctcaaa | aaaaaaaaaa | aaaaagaata | aataaaa | | | 5977 |

<210> 12572
<211> 327
<212> DNA
<213> Homo sapiens

<400> 12572
acgtgcacgt cagagcggtg gcccaacctg aagtaatccc cttttcccct gagaggagggc 60
ccgtgggtgga gtgtttacaat acgggttatgg tcttaccatg cgatacaaga agacactcat 120
tgtctcacat ctttcacagc cagctcaatg acatcacaca cagcacccaa ggtcttcgaa 180
cttgatttca aaatcataca ccattaattc aaattaactt attaagtcag ctgggaaaaa 240
ccttaataacc ttaatacatg ttctacaata ttttaagttac tggtgtaggt tttcatatag 300
actgaaaata agacacacta ctgcaaa 327

<210> 12573
<211> 327
<212> DNA
<213> Homo sapiens

<400> 12573
acgtgcacgt cagagcggtg gcccaacctg aagtaatccc cttttcccct gagaggagggc 60
ccgtgggtgga gtgtttacaat acgggttatgg tcttaccatg cgatacaaga agacactcat 120
tgtctcacat ctttcacagc cagctcaatg acatcacaca cagcacccaa ggtcttcgaa 180
cttgatttca aaatcataca ccattaattc aaattaactt attaagtcag ctgggaaaaa 240
ccttaataatc ttaatacatg ttctacaata ttttaagttac tggtgtaggt tttcatatag 300
actgaaaata agacacacta ctgcaaa 327

<210> 12574
<211> 208
<212> DNA
<213> Homo sapiens

<400> 12574
ctcttagaag tttacccaag agaatttcaa gtggatgtcc atacacaaac ttgtatggaa 60
atgtccatta gcaatttcac ttgcatagtc aaaaactgga aacagcccaa acattcatca 120
acagaaaaat ggatgaacaa attgcatttg tttatcttaa gatactattc aacaatttaa 180
aagaataaac tattgatata tgcaacgt 208

<210> 12575
<211> 1188
<212> DNA
<213> Homo sapiens

<400> 12575
gccaccctgc tgggtgcagt agagcttggt tgactatctt gtcccaagcc ctctgcactt 60
ccaccactc cctccctctt tccagaattt gggagcagggc tcagaaaatg ccatgccctg 120
aaattccacc tgataggaat tgaagagaaa tgaatgagcg attcccagca ggatcacttg 180
ccctaaaaga tgaattgagc cgagtttccg cagtgactgg gtccttccca cacctcatca 240
gtagactcca agccagaatg taaatgaatg caaagtgatc tcattcactg agcttatcca 300
tcatggatat tgggtgccatg actgaagacg gtgttcttgt ccaagagtaa gacttggtgca 360
tgtgtctttt cctccactt tccctggggag ggaatggcct gatgctaccg accagtcac 420
attctctgaa cagatgcac cccagatgagc agctgagttc atcagcttct ccagggtgat 480
ggacacatgg cctgtgatga tgtttctcaa agtgtatgcc acacagaaca ctagtctgtg 540
agttgctcca tgaaccaagg gtgccatggg cagataagct gggaaatgct gcgtgctgca 600
ccttccttag caagattcat gtgcaaagga tctgagaagt cctgtgatac caggcttacc 660
aatccatttg gtcacatcac acacccact cctcactgtt ttttggtttt tttttttttt 720
ttttgactaa acacactgtc tcctagggac acagttctgt gtagttaaca ggaaatattt 780

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|------|
| attgagtttc | tatgtggcag | gccctgaact | aagcttttctt | ttgtatgatt | tcatttgctc | 840 |
| cttaaagcaa | ccctgtgaaa | tttatataatt | gtcatcactc | ccattcgaca | ggtaaagcat | 900 |
| tcgaggcttg | gagagttcaa | gccactttcc | ctcctcactc | agccagtaag | tggtagagcc | 960 |
| aggttcaaac | ccaggcctgc | ctccctccaa | agtccacttt | atcatgcttc | cccagaagaa | 1020 |
| aatggccact | tataataaaa | aggtaaatta | gggccaggtg | cagtggctcc | cgctgtaat | 1080 |
| cccagagctt | tgaggagacca | aggcaagagg | atcatttgag | cccaggtgtt | caaggccagc | 1140 |
| ctaggcaaca | taacgagacc | ctatctctac | aaaaaaaaat | aataataa | | 1188 |

<210> 12576

<211> 517

<212> DNA

<213> Homo sapiens

<400> 12576

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|-----|
| ctccctacgt | ctgtgtgggt | tttctctggg | tattgcggtt | tcctctcgta | tcccaaaggt | 60 |
| gtgcatatta | ggttcatttg | tgcgtctaca | tggtgcaggt | ctgagtgagt | gtgggggtgtg | 120 |
| agagatgcc | cgcatgggtg | tcctatcctg | ggctgggtgcc | catcttgtgt | cctgagctgc | 180 |
| tggtatggg | tctgaccacc | caagaccctt | aactgcaata | aatgggtaaa | taattatttg | 240 |
| ctgttcttaa | tgaatctttc | ttaagctcat | atttattcta | tgtatagtgc | acatttattt | 300 |
| ccatgtttta | tactagaagt | gttttgggtc | tgagaagttt | ggtaggccag | gtacaatggc | 360 |
| tgatgcctga | aatcccagca | ctttttgagg | ctaaggcagg | aggatcactt | gagcctggga | 420 |
| ggtcaaagct | acagtgaagta | tgccatgatt | ccagcaccgc | attccagcct | gggtaacaga | 480 |
| gtgagacaga | agaagaaaga | agaaagaaga | agaagaa | | | 517 |

<210> 12577

<211> 5485

<212> DNA

<213> Homo sapiens

<400> 12577

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| ttttaggtta | caaagtgttg | ctgagcatct | aatgatgatg | acaataataa | ctatgatcta | 60 |
| tggggcactg | gctatgggcc | agggcattgc | taagagctcc | agatccttga | tcttatctaa | 120 |
| tccacataag | agcactatga | gggagggtact | gttattttttc | tcgtttttaca | cacgaggaca | 180 |
| ctgaagcaga | atgggtcaaga | aggtgggtca | tggtccatat | ggggtacagc | caggaccag | 240 |
| cccatgattt | cagctcccgt | gcatgttccc | tccatccaca | gggcctgggtg | cagttctagg | 300 |
| agctgggggg | atgaagaaaag | gaagccaagg | tcttcaccct | caaacactca | cagcttttgc | 360 |
| tggtagacac | aaataagtag | gcaattacta | gaagacatca | aagtgtctgtt | ttacagaaag | 420 |
| ggttggcaga | ctgtttctgt | gaaggggccag | acagtgaagg | ttttagagtc | tgcagggcag | 480 |
| gcagtcgctg | tcgcagctcc | tcagcaccac | cactgcagct | ataaatgtat | gggcatggct | 540 |
| gggttcctat | aaaactttat | ttacaaaaac | aggcctctgg | tgggatttgg | tcgggtgggtg | 600 |
| gaggggtgta | gcttgcccca | gttctggagg | gatgtggcca | aagtgttctg | tgaggacgct | 660 |
| gtagtgaccc | taaggagagg | cacccaactc | catcaggggt | cagggaaggc | ttcctggagg | 720 |
| gggtggcgcc | tgaatgagca | tgagctggcc | gagacgaaga | gcagcctggc | tgaacgggtc | 780 |
| gggtctcaca | acacgggtgct | catgaggaac | gctcttaatg | tgcacactgt | cctgtgtctc | 840 |
| tgcagagcct | gctcgctcag | cacaaagact | tgggagcagc | ttttgagccc | ctgcagagga | 900 |
| agctcttggg | cctccagggtc | aggggtccaag | ccgagaaggg | gcttcagcgg | gaccttctctg | 960 |
| gaaaacaggc | ccagctctca | aggttgcagg | tgaggggtct | gtgaggcctg | aatcactcct | 1020 |
| gccaggtgc | tcagctgcac | ctggaagcag | cgtctccctc | tagcagtaac | cagcaaagca | 1080 |
| acagctgccg | tgagccagaa | atttagaccc | ttagttgaga | tctgaccttt | cacctcaaca | 1140 |
| gaacctctgc | ttatttatct | gatgggtcct | gacctcaaac | aactgagtct | tgagctcagc | 1200 |
| aaaatgacaa | actgtctttc | tgtttactcc | tcagttccaa | agtctaacat | tggtatttgt | 1260 |
| ttttagaatt | gctttgctaa | gtattcttaa | tgagtccaga | ggtgttcagt | taaaccaact | 1320 |
| ttgggattaa | gaataaatgt | tctgaaacgt | ggactgtaag | taggctgacc | gttgatcatt | 1380 |
| ttgggctgga | taaggaactt | gatgggtttt | taaaatgcgc | gtgatacaat | agttctctct | 1440 |
| ttaaaaccca | agcacagctc | atacataaat | tgagagtgtt | ctctagaaga | cattaaaaat | 1500 |
| agtgcatttt | aggccgggag | cgggtgggtca | cgctgttaat | cccagcactt | tgggaggtga | 1560 |
| gcagattgcc | tgacttttagg | attttgagat | cagcctgggc | aacatggtga | aaccctgtct | 1620 |
| ctacttaaaa | taaaaaattt | tttttaaaaa | agcaaaaaat | ttagccaggc | gtgggtggcgg | 1680 |
| gaatctgtaa | ccccagctac | ttgggaggcc | gaggcaccag | aatcacttga | accagaggag | 1740 |

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| cagaggttgc | agtgaagccca | cattgtgcca | ctgtgtctcca | gcctgggcca | cagagtgaga | 1800 |
| ctctgtctcc | aaaaaaagaa | aaaaaatagt | gcattttggg | ttttaaaact | aaaattggga | 1860 |
| cgtgtttcct | cataatgaga | ggtgggtcatc | aagtatgagt | cccaatgtga | gtttgtcccc | 1920 |
| agagatgcca | tctgtcttgt | agcagagttt | attttcatgg | tgtcccagaa | tatttttgtc | 1980 |
| tgatttttaa | aatctctcca | gccctgagag | tgggcccac | agaccagcca | tgtgggtggg | 2040 |
| acttccgctg | gtatgaaaga | gccccaccgc | cttgggggaat | tcacccctcc | caggctctcc | 2100 |
| cactcagagg | ctctgccctg | atcggccacc | ccaagggagg | gagaggtggg | aagattagcc | 2160 |
| tacctgttcc | cttctctact | gcaggggctg | caggaagagg | ggctggactt | gggggacacag | 2220 |
| atggaggctg | caaggcctct | ggtccaggag | aaccccaacc | accagcacia | aatggaccag | 2280 |
| ctttcctccg | acttccaggc | cctgcagagg | tctctggagg | taaggggctg | gcagaagggc | 2340 |
| ctgtgctttt | acagagagcc | ggcccctgtc | atccaacacg | cctggggcct | ttcttcccc | 2400 |
| ttcctgcctt | cattccttct | aacctctctt | ttttctttct | ccctgttttc | ttcccttcc | 2460 |
| cattcataca | acagacaatt | attgagcacc | tcccatatgc | caggcagtgt | tctaggtggc | 2520 |
| cctaaggatg | gaggtagcag | agcatgacag | cccaggcccc | tgctctcctg | ggagttacgc | 2580 |
| cccagttggg | tagatggaca | attaatcatc | aagcaaacia | gccaatgcac | aattacatat | 2640 |
| tgagattagg | gccaagcggc | aaaagaagag | agcaggctgc | tgagatcctt | aggcagccca | 2700 |
| gaacacaggc | ggcctcgggt | cccttgacgc | ctgcacaagg | cctggaggcc | acagagcttc | 2760 |
| atcgccagtg | ccctctagtg | gccacctcag | ctctttctag | ggtttgtcca | ggattcagtc | 2820 |
| cccttccagc | agttagggatg | gaactcaaag | ctccttcaaa | actggcctga | ggacaagtgg | 2880 |
| aaatgcagac | tccaggcccc | actgtgacac | tgattcagat | ggagtcctgg | gtctgcccgtt | 2940 |
| gtaacaagcc | ctgaggagta | taaagcaggg | tctctgtgtg | tcacacctca | agaaaaacca | 3000 |
| gtgaggcagt | gagagctctc | cctcctacct | gacattgcac | gccctatttc | ataccaaaca | 3060 |
| ttcctaacct | cctctttaca | ctcctgaaat | tcatagggaa | tatacccacc | caggaaatag | 3120 |
| aaaagagaaa | tcaaaggaaa | gtaattataa | tacaatattg | tccaatatgt | aagtactccc | 3180 |
| agatggccac | actcaagaca | taaggaggtg | gtcagaacgt | gccctccctg | tgtgacagcc | 3240 |
| gcaaattgctg | tgtcaggtgg | cacaaccatc | acggcctcta | gtgatgtggg | tttctgaaat | 3300 |
| gggaacaacg | cttgatagca | ctttgatcaa | acccaagagc | agtcttccat | ccacttacac | 3360 |
| aaaggggtgca | gctctagaga | agtcagtatg | tttggttaaaa | ctgcaaaatc | ttccttgtgt | 3420 |
| ttgtgtgttg | attggagtga | cagtctgagc | tcaggtcagt | ccaagcaggt | tttttactgc | 3480 |
| tgtagattat | aggagagcat | gagaaaaatc | tgtgggatgt | gggcaaatte | tgcatttgtg | 3540 |
| gactatccac | cccagggtgg | aatgcgagca | cccatccctc | tactccacc | tagtatcacc | 3600 |
| ctcaccacct | ctatcgcagc | aactgcaaac | cctccccacc | agtttccagg | acataaggca | 3660 |
| tcacctgtgg | agccccattg | gtgtaagtga | cgattaatgt | ctgggtgaat | tcatttaatt | 3720 |
| acattcaata | aactagcagt | tagtagtttc | aaggctcagg | cagtagagaa | ataggacaca | 3780 |
| ctgtcctcac | tcctcaggag | cccatagaaa | cccgtagaag | cagcaaaagt | ctcctaatac | 3840 |
| ctccatccaa | atgatgggct | agattagtcg | ttacgagaag | cagcgtaaac | tgagcatcac | 3900 |
| tcgggtgttg | aaaatgatga | tattccaatt | cttattgatt | gtttatatte | ttctttaaag | 3960 |
| agaaattggc | cttttattat | tttgggtacc | agtgtctgtt | aatctaatat | gtccttcccc | 4020 |
| acagcgagcc | agtctctgtg | tccccctggg | gggcaggtat | ctgatgttgg | agatcacagc | 4080 |
| tctatgtacg | ggaagccctt | ggaggcgtct | ggtctaattg | tggcacacag | ggaccaggag | 4140 |
| gggacagtg | tagggacaac | tcagagaagt | ggagttttag | ataacttctc | aggccctcat | 4200 |
| tgatggctca | ctgaggacag | aggcagcagt | ctccccagcc | cctgggtatg | gcctgggtatc | 4260 |
| cagcgatctc | agtcagtgtc | tgtggaatgt | agaaggcagg | gcctatggta | gccctgcaga | 4320 |
| gagtcatgat | gaccttattc | aaggaacaca | gctggaatgg | gaacggcagg | ccctgggggtc | 4380 |
| tgactggttc | atggcaggct | atgtaaagaa | agctccaagg | gtctcaggct | gggtggccag | 4440 |
| aggcatagag | aatggctgcc | cttctgggga | cagtgtccac | ctttcctggg | gacagagagc | 4500 |
| tgaacaatag | attggcccag | gaaacagtac | tcaggaaaaa | gaacaaagaa | agactgaacg | 4560 |
| tgaatatctg | agtgtgcagc | tcgattactt | tttttaaaaa | ttaaatgcat | ctgtgttacc | 4620 |
| agcacccaac | taaaacacag | aatattacca | gcctcccaaa | gcctctgtgc | ctgcggtcac | 4680 |
| gcccagctca | ccattcccga | ccctcaaggg | gggctctgac | ttcatgcttc | ccgcaacata | 4740 |
| gcttgggctt | gcctgatgtt | atccttcatt | taaattgaat | tggacagaat | gttttctttt | 4800 |
| gtgcctggcc | tttagctctc | cagatgatgg | ttgtaaattc | atctgctgta | ttgcatgtgg | 4860 |
| ttatagactg | ttcattcttg | ctgctgtaaa | acattccatt | gtgtgaatat | accaccgtgt | 4920 |
| atttattcat | tctactcttg | atgggcactt | ggatagtttc | caacttgggg | ctgtcacatg | 4980 |
| tatgaccttg | ggtgaggata | tgttcccatt | tctgggacat | acaccgggag | tggaatggct | 5040 |
| gggccattcg | ctacagccac | gttccatttg | ggtagattct | gaccctgggt | ttccacaagt | 5100 |
| gggttagcca | atttacactt | ggatcagttg | tggacaggag | atccaatttc | ccccaccctc | 5160 |
| acctagactt | ggtcgttttc | ctaaaagtaa | gataggcctt | aaaccagatt | tgatcttcca | 5220 |
| agggtaaatt | ccttgtgctg | tgtggaggga | agggccagcc | cagcctcttg | tgggtgctact | 5280 |
| tggtggggag | ccctgggggtc | cccagcgggt | gtgagagccc | tgcagggtgg | gggtgggtgcg | 5340 |
| gggtctcccc | cctcggccag | cactcaggat | gccctgggct | ccccgggctg | tgctgcagga | 5400 |

ccttgtggac aggtgtcggc agagtgtgca ggagcactgc accttcagcc accagctgct 5460
ggagctgcgg cagtggatcg ttgtg 5485

<210> 12578
<211> 5485
<212> DNA
<213> Homo sapiens

<400> 12578
tttttaggtaa caaatgtttg ctgagcatct aatgatgatg acaataataa ctatgatcta 60
tggggcactg gctatgggac agggcattgc taagagctcc agatccttga tcttatctaa 120
tccacataag agcactatga gggagggtact gttatttttc tctgtttaca cacgaggaca 180
ctgaagcaga atggtcaaga aggtgggtcct tgggtccatat ggggtacagc caggaccagc 240
cccatgattt cagctcccggt gcatgttccc tccatccaca gggcctgggtg cagttctagg 300
agctgggggg atgaagaaag gaagccaagg tcttcaccct caaactca cagcttttgc 360
tggttagacac aaataagtag gcaattacta gaagacatca aagtgtgtgt ttacagcaag 420
ggttggcaga ctgtttctgt gaagggccag acagtgaagg ttttagagtc tgcagggcag 480
gcagtcgctg tgcagctcc tcagcaccac cactgcagct ataatgtat gggcatggct 540
gggttctctat aaaactttat ttacaaaaac aggcctctgg tgggatttgg tgggtgggtg 600
gaggggtgta gcttgcacca gttctggagg gatgtggcca aagtgttctg tgaggacgct 660
gtagtacacc taaggagagg caccacaactc catcagggct cagggaaggc ttcctggagg 720
gggtggcgcc tgaatgagca tgagctggcc gagacgaaga gcagcctggc tgaacgggtc 780
gggtctcaca acacgggtgt catgaggaac gctcttaatg tgcacactgt cctgtgtctc 840
tgcagagcct gctcgtctag cacaaagact ttggagcagc ttttgagccc ctgcagagga 900
agctcttgga cctccagggtc aggttccaag ccgagaaggg gcttcagcgg gaccttctctg 960
gaaaacaggg ccagctctca aggttgcagg tgaggggtct gtgaggcctg aatcactcct 1020
gcccagggtg tcagctgcac ctggaagcag cgtctccctc tagcagtaac cagcaaagca 1080
acagctgccc tgagccagaa atttagaccc ttagttaga tctgacctt cacctcaaca 1140
gaacctctgc ttatttatct gatggttctc gacctcaaa aactgagtct tgagctcagc 1200
aaaatgacaa actgtcttct tgtttactcc tcagttccaa agtctaacat tggattttgt 1260
ttttagaatt gctttgctaa gtattcttaa tgagtccaga ggtgttcagt taaaccaact 1320
ttgggattaa gaataaatgt tctgaaacgt ggactgtaag taggctgacc gttgatcatt 1380
gttggtctga taaggaaact gatggttttt taaaatgcgc gtgatacaat agttctctct 1440
ttaaaccaca agcacagctc atacataaat tgagagtgtt ctctagaaga cattaaaaat 1500
agtgcatttt aggcggggag cgggtggctca cgcctgtaat cccagcactt tgggaggtga 1560
gcagattgcc tgacttttagg atttttagat cagcctgggc aacatggtga aacctgtct 1620
ctacttaaaa taaaaaattt tttttaaaaa agcaaaaaat ttagccaggc gtgggtggcgg 1680
gaatctgtaa cccagctac ttgggaggcc gaggcaccag aatcacttga accaggagg 1740
cagagggtgc agtgagccca cattgtgcca ctgtgtccca gcctgggcga cagagtga 1800
ctctgtctcc aaaaaaagaa aaaaaatagt gcattttggg ttttaaaact aaaattggga 1860
cgtgtttcct cataatgaga ggtgggtcatc aagtatgagt cccaatgtga gtttgtcccc 1920
agagatgcca tctgtcttgt agcagagttt attttcatgg tgtcccagaa tatttttgtc 1980
tgatttttaa aatctctcca gccctgagag tggggccatc agaccagcca tgtgggtggg 2040
acttccgctg gtatgaaaga gccccaccgc cttggggaat tccccctcc caggctctcc 2100
cactcagagg ctctgccctg atcgggccac ccaagggagg gagagggtgg aagattagcc 2160
tacctgttcc cttctctact gcaggggctg caggaaggag ggctggactt gggggcacag 2220
atggaggctg caaggcctct ggtccaggag aaccccaacc accagcacia aatggaccag 2280
cttctctccg acttccaggc cctgcagagg tctctggagg taaggggctg gcagaagggc 2340
ctgtgctttg acagagagcc ggccccgtgc atccaacacg cctggggcct ttcttcccc 2400
ttctgcctt cattccttct aacctctctt ttttctttct cctgttttct ttccttctct 2460
cattcataca acagacaatt attgagcacc tcccatatgc caggcagtg tctaggtggc 2520
cctaaggatg gaggtagcag agcatgacag cccaggcccc tgcctctctg ggagttacgc 2580
cccagttggg tagatggaca attaatcatc aagcaaacaa gccaatgcac aattacatat 2640
tgagattagg gccaaagcggc aaaagaagag agcaggctgc tgagatcctt aggcagccca 2700
gaacacaggc ggcctcgggt cccttgacg ctgcacaagg cctggaggcc acagagcttc 2760
atcgccagtg cctctagtgc gccacctcag ctctttctag ggtttgtcca ggattcagtc 2820
cccttccagc agtagggatg gaactcaaag ctcttcaaaa actggcctga ggacaagtgg 2880
aaatgcagac tccaggcccc actgtgacac tgattcagat ggagtcctgg gtctgccgtt 2940
gtaacaagcc ctgaggagta taaagcaggg tctctgggtgc tcacacctca agaaaacca 3000
gtgaggcagt gagagctctc cctcctacct gacattgcac gccctatttc ataccaca 3060

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| ttcctaacct | cctctttaca | ctcctgaaat | tcatagggaa | tatacccacc | caggaaatag | 3120 |
| aaaagagaaa | tcaaaggaaa | gtaattataa | tacaatatgt | tccaatatgt | aagtactccc | 3180 |
| agatggccac | actcaagaca | taaggaggtg | gtcagaacgt | gccctcccctg | tgtgacagcc | 3240 |
| gcaaagtctg | tgtcaggtgg | cacaaccatc | acggcctcta | gtgatgtggg | tttctgaaat | 3300 |
| gggaacaacg | cttgatagca | ctttgatcaa | acccaagagc | agtcttccat | ccacttacac | 3360 |
| aaaggggtgca | gctctagaga | agtcagtatg | tttgttaaaa | ctgcaaaatc | ttccttgtgt | 3420 |
| ttgtgtgttg | attggagtga | cagtctgagc | tcaggtcatg | ccaagcaggt | tttttactgc | 3480 |
| tgtagatatt | aggaggacat | gagaaaatcg | tgtgggatgt | gggcaaattc | tgcatttgtg | 3540 |
| gactatccac | cccaggggtg | aatgcgagca | cccatcccctc | tcactccacc | tagtatcacc | 3600 |
| ctcaccacct | ctatcgcagc | aactgcaaac | cctccccacc | agtttccagg | acataaggca | 3660 |
| tcacctgtgg | agccccattg | gtgtaagtga | cgattaatgt | ctgggtgaat | tcattttaatt | 3720 |
| acattcaata | aactagcagt | tagtagtttc | aaggctcgagg | cagtagagaa | ataggacaca | 3780 |
| ctgtcctcac | tcctcagtag | cccatagaaa | cccgtagaag | cagcaaaagt | ctcctaatac | 3840 |
| ctccatccaa | atgatgggct | agattagtcg | ttacgagaag | cagcgttaac | tgagcatcac | 3900 |
| tcgggtgttg | aaaatgatga | tattccaatt | cttattgatt | gtttatatctc | ttctttaaag | 3960 |
| agaaattgcc | cttttattat | tttggtaccc | agtgtctgtt | aatctaatat | gtccttcccc | 4020 |
| acagcgaggc | agtctctgtg | tccccctggg | gggcaggtat | ctgatgttgg | agatcacagc | 4080 |
| tctatgtacg | ggaagccctt | ggaggcgtct | ggtctaattgt | tggcacacag | ggaccaggag | 4140 |
| gggacagtgg | tagggacaac | tcagagaagt | ggagttttag | ataacttctc | aggccctcat | 4200 |
| tgatggctca | ctgaggacag | aggcagcagt | ctccccagcc | cctgggtatgg | gcctgggtatc | 4260 |
| cagcgatctc | agtcagtgtc | tgtggaatgt | agaaggcagg | gcctatggta | gcctgcaga | 4320 |
| gagtcattgat | gaccttattc | aagggaacaca | gctggaaatgg | gaacggcagg | ccctggggtc | 4380 |
| tgactgggtc | atggcaggct | atgtaaagaa | agctccaagg | gtctcaggct | gggtggccag | 4440 |
| aggcatagag | aatggctgcc | cttctgggga | cagtgtccac | ctttcctggg | gacagagagc | 4500 |
| tgaacaatag | attggcccag | gaaacagtac | tcaggaaaaa | gaacaaagaa | agactgaacg | 4560 |
| tgaatatctg | agtgtgcagc | tcgattactt | tttttaaaaa | ttaaatgcat | ctgtgttacc | 4620 |
| agcacccaac | taaaacacag | aatattacca | gcctcccaaa | gcctctgtgc | ctgcggtcat | 4680 |
| gcccagctca | ccattcccga | ccctcaaggg | gggctctgac | ttcatgcttc | ccgcaacata | 4740 |
| gcttgggctt | gcctgatgtt | atccttcatt | taaattgaat | tggacagaat | gttttctttt | 4800 |
| gtgcctggcc | tttagctctc | cagatgatgg | ttgtaaattc | atctgctgta | ttgcatgtgg | 4860 |
| ttatagactg | ttcattcttg | ctgctgtaaa | acattccatt | gtgtgaatat | accaccgtgt | 4920 |
| atttattcat | tctactcttg | atgggcactt | ggatagtttc | caacttgggg | ctgtcacatg | 4980 |
| tatgaccttg | ggtgaggata | tgttcccatt | tctgggacat | acaccgggag | tggaaatggc | 5040 |
| gggccatcag | ctacagccac | gttccatttg | ggtagattct | gaccctgggt | ttccacaagt | 5100 |
| ggttgagcca | atttacactt | ggatcagtg | tggacaggag | atccaatttc | ccccaccctc | 5160 |
| acctagactt | ggtcgttttc | ctaaaagtaa | gataggcttt | aaaccagatt | tgatcttcca | 5220 |
| agggtaaatt | ccttgtgctg | tgtggaggga | agggccagcc | cagcctcttg | tggtgctact | 5280 |
| tggtggggag | ccctggggtc | cccagcgggt | gtgagagccc | tgcaggggtg | gggtgggtgcg | 5340 |
| ggggtctccc | cctcggccag | cactcaggat | gccctgggct | ccccgggctg | tgctgcagga | 5400 |
| ccttgtggac | aggtgtcggc | agagtgtgca | ggagcactgc | accttcagcc | accagctgct | 5460 |
| ggagctgcgg | cagtggatcg | ttgtg | | | | 5485 |

<210> 12579

<211> 280

<212> DNA

<213> Homo sapiens

<400> 12579

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| tcacgcctgt | aatcccagca | ctttggggagg | ccgaggtggg | cggatcacga | ggtcaggaga | 60 |
| tcgagaccat | cctggctaac | acagtgaaac | cccgtctcta | ctaaaaaat | acaaaaaat | 120 |
| tagccgggtg | tggtgggtgg | cgctgtagt | cccagctact | cgggaggctg | aggcaggaga | 180 |
| atggcgtgaa | cccaggaggt | gaagcttgca | gtgagctgag | atcgtgccac | tgcactccag | 240 |
| cctgggcaac | agagtgaac | tccagctcaa | aaaaaaaaa | | | 280 |

<210> 12580

<211> 1342

<212> DNA

<213> Homo sapiens

<400> 12580

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| caaacttcag | tgggggggcac | tgactcgtga | cccgtgggttc | cccaattcta | ttactttttcc | 60 |
| catgtcctgg | tgggtcccca | ccacatctct | gcattgactg | ggctgagttt | gtctttctcag | 120 |
| cctcatcaga | aactggcatc | tgcagaggat | ggaagtggat | tcggggaaga | aaatgggtttt | 180 |
| caccaacaac | atcccaaagt | caggattttct | catcaatccc | atggatccta | ttcccaggca | 240 |
| tcgtcgacgc | gtgagtctgt | ctagcagggc | tgtgggagaa | ggggccaggc | cccagggtcaa | 300 |
| gaggtgggta | ggggtctcca | gcacaggccc | ctccctgtct | ggggcaacat | gctctgtctct | 360 |
| gaggacttgg | ccacgtcctg | tctcatttga | gcctgcccc | gctgtggcca | aagagcattt | 420 |
| gacccacttc | cacagaggac | ctcagagatc | ccagagtctg | cagagccagg | ccaccagggc | 480 |
| agtaggggta | tcccttagcc | agtcagatac | tcacctctgt | gagccactag | cagcagctcc | 540 |
| tgcaggggaag | agagtgtcgg | ggctgaaagc | ttcctgctgg | ccccagattg | gaaaccgaaa | 600 |
| ccatacaaga | tgggaaaact | tttctgccat | gtttcatcca | tcccttactg | cctctaaaca | 660 |
| aacttgagct | ttgtggaaaa | gaaagttatt | ccttggttatt | caaatacatc | aaattattca | 720 |
| ttttccatt | cattctttca | tccactcctc | catttgctga | gtgctacttt | gttccaagaa | 780 |
| ctgtgctcag | agctaggata | cagccgtgag | taacgcttct | gaccctcaga | gaatttggaa | 840 |
| tccggcatag | agcttttccag | tgggcacaca | gccttgatt | aaaatgcagg | ttctgggctg | 900 |
| ggtatggtga | gctacaccta | caatctcaga | actttgggag | gctgggaggc | caaggcagga | 960 |
| ggattgcttg | aggtcaggag | tttgagacaa | gcctgggcaa | gatagcaaga | ccccatttct | 1020 |
| ataaaaaata | tttaaaaatt | aactggacat | ggtggtgtgc | tcctgtagtt | ccagctactc | 1080 |
| aggggcctga | ggtgggagga | tcacttgagc | ccaggagtgt | gaggctgcag | ggagctgtga | 1140 |
| ttgtgccact | gcactccagc | ctggtgacaa | agcaagacc | catttcaatc | aatcaatcaa | 1200 |
| tcaacaaaaa | ataatgaaat | aagataaaat | gcagactctg | agttagtaga | tctggctagg | 1260 |
| gccacaatt | cgattctgca | tttctaacaa | gctctcgga | taggcccatg | ctgctgggcc | 1320 |
| cgggagatac | tcacctctgt | ga | | | | 1342 |

<210> 12581

<211> 1342

<212> DNA

<213> Homo sapiens

<400> 12581

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| caaacttcag | tgggggggcac | tgactcgtga | cccgtgggttc | cccaattcta | ttactttttcc | 60 |
| catgtcctgg | tgggtcccca | ccacatctct | gcattgactg | ggctgagttt | gtctttctcag | 120 |
| cctcatcaga | aactggcatc | tgcagaggat | ggaagtggat | tcggggaaga | aaatgggtttt | 180 |
| caccaacaac | atcccaaagt | caggattttct | catcaatccc | atggatccta | ttcccaggca | 240 |
| tcgtcgacgc | gtgagtctgt | ctagcagggc | tgtgggagaa | ggggccaggc | cccagggtcaa | 300 |
| gaggtgggta | ggggtctcca | gcacaggccc | ctccctgtct | ggggcaacat | gctctgtctct | 360 |
| gaggacttgg | ccacgtcctg | tctcatttga | gcctgcccc | gctgtggcca | aagagcattt | 420 |
| gacccacttc | cacagaggac | ctcagagatc | ccagagtctg | cagagccagg | ccaccagggc | 480 |
| agtaggggta | tcccttagcc | agtcagatac | tcacctctgt | gagccactag | cagcagctcc | 540 |
| tgcaggggaag | agagtgtcgg | ggctgaaagc | ttcctgctgg | ccccagattg | gaaaccgaaa | 600 |
| ccatacaaga | tgggaaaact | tttctgccat | gtttcatcca | tcccttactg | cctctaaaca | 660 |
| aacttgagct | ttgtggaaaa | gaaagttatt | ccttggttatt | caaatacatc | aaattattca | 720 |
| ttttccatt | cattctttca | tccactcctc | catttgctga | gtgctacttt | gttccaagaa | 780 |
| ctgtgctcag | agctaggata | cagccgtgag | taacgcttct | gaccctcaga | gaatttggaa | 840 |
| tccggcatag | agcttttccag | tgggcacaca | gccttgatt | aaaatgcagg | ttctgggctg | 900 |
| ggtatggtga | gctacaccta | caatctcaga | actttgggag | gctgggaggc | caaggcagga | 960 |
| ggattgcttg | aggtcaggag | tttgagacaa | gcctgggcaa | gatagcaaga | ccccatttct | 1020 |
| ataaaaaata | tttaaaaatt | aactggacat | ggtggtgtgc | tcctgtagtt | ccagctactc | 1080 |
| aggggcctga | ggtgggagga | tcacttgagc | ccaggagtgt | gaggctgcag | ggagctgtga | 1140 |
| ttgtgccact | gcactccagc | ctggtgacaa | agcaagacc | catttcaatc | aatcaatcaa | 1200 |
| tcaacaaaaa | ataatgaaat | aagataaaat | gcagactctg | agttagtaga | tctggctagg | 1260 |
| gccacaatt | cgattctgca | tttctaacaa | gctctcgga | taggcccatg | ctgctgggcc | 1320 |
| cgggagatac | tcacctctgt | ga | | | | 1342 |

<210> 12582

<211> 303

<212> DNA

<213> Homo sapiens

<400> 12582

| | | | | | | |
|------------|------------|------------|-------------|-------------|-------------|-----|
| ggctgggcac | ggtggctcac | gcctgtaatc | ccagcacttt | gggaggccga | ggtggggcgga | 60 |
| tcacgaggtc | aggagatcga | gaccatcctg | gctaacacag | tgaacccccg | tctctactaa | 120 |
| aaaaatacaa | aaaaattagc | cgggtgtggt | ggtggggcgcc | tgtagtccca | gctactcggg | 180 |
| aggctgaggc | aggagaatgg | cgtgaacca | ggaggtgaag | cttgcaagtga | gctgagatcg | 240 |
| tgccactgca | ctccagcctg | ggcaacagag | tgagactcca | gctcaaaaaa | aaaaaaaaaa | 300 |
| gaa | | | | | | 303 |

<210> 12583

<211> 1377

<212> DNA

<213> Homo sapiens

<400> 12583

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| gtatatcttg | tctgtcagct | aaattgtgtc | cttaagggca | ggacctgtgt | ttcagacatc | 60 |
| tttgatattt | accatgtttg | tcataaaattt | agtgaatgta | cagtatattt | tggtttttagg | 120 |
| cgagcagtg | atctgtccct | tttgctgctt | gctagtctctg | ccttacaact | tccactggaa | 180 |
| agagcttttt | agtgcagcaa | atagtgtctg | cattttattg | tataaagcat | tgccctggg | 240 |
| ataccaaatc | atctgtgacag | agggtcatttc | agggatgcca | caggcttcat | aattgctact | 300 |
| tgatgctagt | tgtagcaaat | tgcaacttggg | ttttggtagt | tgtagagtata | gtgtgtgtctc | 360 |
| cttccacccc | gccttgtgtg | ttaatcactg | actgccagga | aatctctttg | acataacatc | 420 |
| ctaaaaagtt | tttggttatca | gtagggccct | gtaacatctt | tttccctttc | ttaaagcctat | 480 |
| gccttcaagt | ttttttacaag | tgtcttattc | cttctaaatt | gagaactaat | tgaatatctt | 540 |
| ttcttgtaga | taaatcttat | tttaaataatc | tagttatcat | tacttttgc | tctccttttc | 600 |
| tgattttatg | ttacattacc | aatatcttat | gatattttaa | cttttttgaa | ctctgctttt | 660 |
| taaaataaat | aataataaatg | cctcaattat | ctggaactta | caactgaaaca | ctgtaatctt | 720 |
| gtctctgagc | ctgcttcccc | tcaaaaaaatt | tagatttagc | ttttcagatg | cttatagcta | 780 |
| gccaagtaag | tgagaataaaa | cacaaaaaagg | ctaaaaatatg | caagttccgg | agttgtcaaa | 840 |
| gcttcatgta | aaatgtgtca | ttgtggaatt | taaaaaattc | tacgcttttt | catcaagggt | 900 |
| tttggttggg | gcattagaca | cttccctgaa | tctggcattc | tcctaggcac | tggggatacc | 960 |
| atggagaaga | ggcagatatg | gtcttggctc | acatggggca | tataatcaag | cagtaattct | 1020 |
| taaccttggg | cagacttgag | tccattatgc | caatgggtcat | ctccactttg | ccatgccatt | 1080 |
| ttagttttcc | ctaagtaaaa | actacgcctg | taatcctagc | actttggggg | gccaaggcgg | 1140 |
| gtggatcacc | tgagggtcagg | agttcgagac | cagcctggcc | aacatgggtga | aacctcatct | 1200 |
| ctactaaaaa | tacaaacatt | agctgggcgt | gatggcgcg | gcctgtaatc | ccagctactc | 1260 |
| aggaggctga | ggcaggagaa | tcacttgaac | ttgagagacg | gaggttgccg | tgagccgaga | 1320 |
| tcaagccact | gcactccagt | ctgggtgata | gagtgagact | cagtctcaaa | aaaaaaa | 1377 |

<210> 12584

<211> 38771

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (7892)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (7893)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (7894)

<223> n equals a,t,g, or c

<221> SITE
 <222> (7907)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7908)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7909)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7910)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7911)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7912)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7913)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7914)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7915)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7916)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7917)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7918)
 <223> n equals a,t,g, or c

<220>
 <221> SITE

09950083 091201
T02T60" 08005660

<222> (7919)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7920)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7921)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7922)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7923)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7924)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7925)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7926)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7927)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7928)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7929)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7930)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7931)

<220>
 <221> SITE
 <222> (7944)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7945)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7946)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7947)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7948)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7949)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7950)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7951)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7952)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7953)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7954)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (7955)
 <223> n equals a,t,g, or c

```

<220>
<221> SITE
<222> (7956)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7957)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7958)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7959)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7960)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7961)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7962)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7963)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7964)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7965)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7966)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7967)
<223> n equals a,t,g, or c

<220>

```

095003 0410
"02T50" E805660

<221> SITE
<222> (7968)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7969)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7970)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7971)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7972)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7973)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7974)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7975)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7976)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7977)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7978)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (7979)
<223> n equals a,t,g, or c

<220>
<221> SITE

| a) 1990-1991 | | b) 1991-1992 | | c) 1992-1993 | | d) 1993-1994 | | e) 1994-1995 | | f) 1995-1996 | | g) 1996-1997 | | h) 1997-1998 | | i) 1998-1999 | | j) 1999-2000 | | k) 2000-2001 | | l) 2001-2002 | | m) 2002-2003 | | n) 2003-2004 | | o) 2004-2005 | | p) 2005-2006 | | q) 2006-2007 | | r) 2007-2008 | | s) 2008-2009 | | t) 2009-2010 | | u) 2010-2011 | | v) 2011-2012 | | w) 2012-2013 | | x) 2013-2014 | | y) 2014-2015 | | z) 2015-2016 | | aa) 2016-2017 | | ab) 2017-2018 | | ac) 2018-2019 | | ad) 2019-2020 | | ae) 2020-2021 | | af) 2021-2022 | | ag) 2022-2023 | | ah) 2023-2024 | | ai) 2024-2025 | | aj) 2025-2026 | | ak) 2026-2027 | | al) 2027-2028 | | am) 2028-2029 | | an) 2029-2030 | | ao) 2030-2031 | | ap) 2031-2032 | | aq) 2032-2033 | | ar) 2033-2034 | | as) 2034-2035 | | at) 2035-2036 | | au) 2036-2037 | | av) 2037-2038 | | aw) 2038-2039 | | ax) 2039-2040 | | ay) 2040-2041 | | az) 2041-2042 | | ba) 2042-2043 | | bb) 2043-2044 | | bc) 2044-2045 | | bd) 2045-2046 | | be) 2046-2047 | | bf) 2047-2048 | | bg) 2048-2049 | | bh) 2049-2050 | | bi) 2050-2051 | | bj) 2051-2052 | | bk) 2052-2053 | | bl) 2053-2054 | | bm) 2054-2055 | | bn) 2055-2056 | | bo) 2056-2057 | | bp) 2057-2058 | | bq) 2058-2059 | | br) 2059-2060 | | bs) 2060-2061 | | bt) 2061-2062 | | bu) 2062-2063 | | bv) 2063-2064 | | bw) 2064-2065 | | bx) 2065-2066 | | by) 2066-2067 | | bz) 2067-2068 | | ca) 2068-2069 | | cb) 2069-2070 | | cc) 2070-2071 | | cd) 2071-2072 | | ce) 2072-2073 | | cf) 2073-2074 | | cg) 2074-2075 | | ch) 2075-2076 | | ci) 2076-2077 | | cj) 2077-2078 | | ck) 2078-2079 | | cl) 2079-2080 | | cm) 2080-2081 | | cn) 2081-2082 | | co) 2082-2083 | | cp) 2083-2084 | | cq) 2084-2085 | | cr) 2085-2086 | | cs) 2086-2087 | | ct) 2087-2088 | | cu) 2088-2089 | | cv) 2089-2090 | | cw) 2090-2091 | | cx) 2091-2092 | | cy) 2092-2093 | | cz) 2093-2094 | | da) 2094-2095 | | db) 2095-2096 | | dc) 2096-2097 | | dd) 2097-2098 | | de) 2098-2099 | | df) 2099-2100 | | dg) 2100-2101 | | dh) 2101-2102 | | di) 2102-2103 | | dj) 2103-2104 | | dk) 2104-2105 | | dl) 2105-2106 | | dm) 2106-2107 | | dn) 2107-2108 | | do) 2108-2109 | | dp) 2109-2110 | | dq) 2110-2111 | | dr) 2111-2112 | | ds) 2112-2113 | | dt) 2113-2114 | | du) 2114-2115 | | dv) 2115-2116 | | dw) 2116-2117 | | dx) 2117-2118 | | dy) 2118-2119 | | dz) 2119-2120 | | ea) 2120-2121 | | eb) 2121-2122 | | ec) 2122-2123 | | ed) 2123-2124 | | ee) 2124-2125 | | ef) 2125-2126 | | eg) 2126-2127 | | eh) 2127-2128 | | ei) 2128-2129 | | ej) 2129-2130 | | ek) 2130-2131 | | el) 2131-2132 | | em) 2132-2133 | | en) 2133-2134 | | eo) 2134-2135 | | ep) 2135-2136 | | eq) 2136-2137 | | er) 2137-2138 | | es) 2138-2139 | | et) 2139-2140 | | eu) 2140-2141 | | ev) 2141-2142 | | ew) 2142-2143 | | ex) 2143-2144 | | ey) 2144-2145 | | ez) 2145-2146 | | fa) 2146-2147 | | fb) 2147-2148 | | fc) 2148-2149 | | fd) 2149-2150 | | fe) 2150-2151 | | ff) 2151-2152 | | fg) 2152-2153 | | fh) 2153-2154 | | fi) 2154-2155 | | fj) 2155-2156 | | fk) 2156-2157 | | fl) 2157-2158 | | fm) 2158-2159 | | fn) 2159-2160 | | fo) 2160-2161 | | fp) 2161-2162 | | fq) 2162-2163 | | fr) 2163-2164 | | fs) 2164-2165 | | ft) 2165-2166 | | fu) 2166-2167 | | fv) 2167-2168 | | fw) 2168-2169 | | fx) 2169-2170 | | fy) 2170-2171 | | fz) 2171-2172 | | ga) 2172-2173 | | gb) 2173-2174 | | gc) 2174-2175 | | gd) 2175-2176 | | ge) 2176-2177 | | gf) 2177-2178 | | gg) 2178-2179 | | gh) 2179-2180 | | gi) 2180-2181 | | gj) 2181-2182 | | gk) 2182-2183 | | gl) 2183-2184 | | gm | |
|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|----|--|
|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|----|--|

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

095003-091201
T02T60 E300560

<220>
<221> SITE
<222> (8017)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8018)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8019)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8020)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8021)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8022)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8023)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8024)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8025)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8026)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8027)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8028)
<223> n equals a,t,g, or c

<220>

095003 "030560
T02T60" E300560

<221> SITE
<222> (8029)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8030)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8031)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8032)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8033)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8034)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8035)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8036)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8037)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8038)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8039)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8040)
<223> n equals a,t,g, or c

<220>
<221> SITE

095005560
"E3005560"
095005560

<222> (8041)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8042)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8043)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8044)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8045)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8046)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8047)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8048)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8049)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8050)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8051)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8052)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8053)

09450083 091204
"L02T60" 08005460

<220>
<221> SITE
<222> (8066)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8067)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8068)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8069)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8070)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8071)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8072)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8073)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8074)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8075)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8076)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8077)
<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8078)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8079)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8080)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8081)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8082)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8083)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8084)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8085)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8086)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8087)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8088)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8089)
 <223> n equals a,t,g, or c

<220>

005008 091
"02160" E8005550

<221> SITE
<222> (8090)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8091)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8092)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8093)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8094)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8095)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8096)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8097)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8098)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8099)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8100)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8101)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (8102)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8103)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8104)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8105)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8106)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8107)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8108)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8109)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8111)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8112)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8113)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8114)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8115)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8116)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8117)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8118)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8119)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8120)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8121)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8122)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8123)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8124)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8125)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8126)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8127)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8128)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8129)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8130)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8131)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8132)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8133)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8134)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8135)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8136)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8137)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8138)
<223> n equals a,t,g, or c

0905008 091201

<220>
<221> SITE
<222> (8139)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8140)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8141)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8142)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8143)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8144)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8145)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8146)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8147)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8148)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8149)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8150)
<223> n equals a,t,g, or c

<220>

```
<221> SITE
<222> (8151)
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8152)  
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8153)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8154)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8155)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8156)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8157)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8158)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8159)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8160)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8161)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8162)
<223> n equals a,t,g, or c
```

<220>
<221> SITE

<222> (8163)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8164)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8165)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8166)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8167)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8168)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8169)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8170)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8171)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8172)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8173)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8174)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8175)

<220>
<221> SITE
<222> (8200)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8201)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8202)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8203)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8204)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8205)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8206)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8207)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8208)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8209)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8210)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8211)
<223> n equals a,t,g, or c

<220>

<221> SITE
 <222> (8212)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8213)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8214)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8215)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8216)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8217)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8218)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8219)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8220)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8221)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8222)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8223)
 <223> n equals a,t,g, or c

<220>
 <221> SITE

```

<222> (8224)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8225)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8226)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8227)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8228)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8229)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8230)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8231)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8232)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8233)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8234)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8235)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8236)

```

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8237)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8238)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8239)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8240)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8241)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8242)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8243)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8244)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8245)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8246)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8247)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8248)

<223> n equals a,t,g, or c

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8298)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8299)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8300)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8301)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8302)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8303)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8304)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8305)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8306)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8307)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8308)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (8309)

<223> n equals a,t,g, or c

102160" 6300560

<220>
<221> SITE
<222> (8310)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8311)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8312)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8313)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8314)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8315)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8316)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8317)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8318)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8319)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8320)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8321)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8322)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8323)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8324)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8325)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8326)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8327)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8328)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8329)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8330)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8331)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8332)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8333)
<223> n equals a,t,g, or c

<220>

<222> (8346)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8347)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8348)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8349)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8350)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8351)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8352)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8353)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8354)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8355)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8356)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8357)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8358)

| Table 1. Demographic characteristics of the study population | |
|--|-------------|
| Age (years) | Mean (SD) |
| Male | 55.2 (10.5) |
| Female | 56.8 (11.2) |
| Marital status | |
| Married | 68.5% |
| Single | 31.5% |
| Education level | |
| High school or above | 72.3% |
| Below high school | 27.7% |
| Occupation | |
| White collar | 45.6% |
| Blue collar | 54.4% |
| Income (USD/month) | |
| < 1000 | 12.1% |
| 1000-2000 | 35.4% |
| 2000-3000 | 28.9% |
| > 3000 | 23.6% |
| Health insurance | |
| Yes | 89.2% |
| No | 10.8% |
| Comorbidities | |
| Hypertension | 32.1% |
| Diabetes | 18.7% |
| Cholesterol | 25.3% |
| Smoking status | |
| Current smoker | 15.4% |
| Former smoker | 22.8% |
| Non-smoker | 61.8% |
| Alcohol consumption | |
| Regular | 8.9% |
| Occasional | 14.2% |
| Never | 76.9% |

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

09950083 091210 1
"02150" 09005660

<220>
<221> SITE
<222> (8371)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8372)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8373)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8374)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8375)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8376)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8377)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8378)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8379)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8380)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8381)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8382)
<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8383)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8384)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8385)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8386)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8387)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8388)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8389)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8390)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8391)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8392)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8393)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8394)
 <223> n equals a,t,g, or c

<220>

<221> SITE
<222> (8395)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8396)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8397)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8398)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8399)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8400)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8401)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8402)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8403)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8404)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8405)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8406)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (8407)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8408)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8409)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8410)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8411)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8412)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8413)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8414)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8415)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8416)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8417)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8418)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8419)

```

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8420)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8421)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8422)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8423)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8424)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8425)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8426)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8427)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8428)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8429)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8430)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8431)
<223> n equals a,t,g, or c

```


1.03150" E3005660

<220>
<221> SITE
<222> (8444)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8445)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8446)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8447)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8448)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8449)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8450)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8451)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8452)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8453)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8454)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8455)
<223> n equals a,t,g, or c

<220>

095003-091204
"02150" 8300550

<222> (8468)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8469)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8470)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8471)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8472)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8473)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8474)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8475)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8476)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8477)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8478)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8479)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8480)

1.02150" E800560

<220>
<221> SITE
<222> (8505)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8506)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8507)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8508)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8509)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8510)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8511)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8512)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8513)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8514)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8515)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8516)
<223> n equals a,t,g, or c

<220>

```
<221> SITE
<222> (8517)
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8518)  
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8519)
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8520)  
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8521)  
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8522)  
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8523)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8524)
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8525)  
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8526)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8527)
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (8528)  
<223> n equals a,t,g, or c
```

<220>
<221> SITE

09950083 051201
102150 88005660

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8542)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8543)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8544)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8545)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8546)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8547)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8548)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8549)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8550)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8551)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8552)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8553)
<223> n equals a,t,g, or c


```

<220>
<221> SITE
<222> (8566)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8567)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8568)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8569)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8570)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8571)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8572)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8573)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8574)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8575)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8576)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8577)
<223> n equals a,t,g, or c

<220>

```

<221> SITE
 <222> (8578)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8579)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8580)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8581)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8582)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8583)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8584)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8585)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8586)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8587)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8588)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8589)
 <223> n equals a,t,g, or c

<220>
 <221> SITE

09950083-091204
"E8005660"

<222> (8590)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8591)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8592)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8593)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8594)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8595)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8596)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8597)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8598)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8599)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8600)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8601)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8602)

| a) H_2O and H_2O_2 | | b) H_2O and H_2O_2 | | c) H_2O and H_2O_2 | | d) H_2O and H_2O_2 | | e) H_2O and H_2O_2 | | f) H_2O and H_2O_2 | | g) H_2O and H_2O_2 | | h) H_2O and H_2O_2 | | i) H_2O and H_2O_2 | | j) H_2O and H_2O_2 | | k) H_2O and H_2O_2 | | l) H_2O and H_2O_2 | | m) H_2O and H_2O_2 | | n) H_2O and H_2O_2 | | o) H_2O and H_2O_2 | | p) H_2O and H_2O_2 | | q) H_2O and H_2O_2 | | r) H_2O and H_2O_2 | | s) H_2O and H_2O_2 | | t) H_2O and H_2O_2 | | u) H_2O and H_2O_2 | | v) H_2O and H_2O_2 | | w) H_2O and H_2O_2 | | x) H_2O and H_2O_2 | | y) H_2O and H_2O_2 | | z) H_2O and H_2O_2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---|--|---|--|---|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<221> SITE

<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8615)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8616)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8617)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8618)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8619)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8620)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8621)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8622)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8623)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8624)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8625)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8626)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8627)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8628)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8629)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8630)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8631)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8632)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8633)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8634)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8635)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8636)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8637)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8638)
 <223> n equals a,t,g, or c

<220>

<222> (8651)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8652)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8653)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8654)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8655)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8656)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8657)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8658)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8659)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8660)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8661)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8662)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8663)

<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8664)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8665)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8666)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8667)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8668)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8669)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8670)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8671)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8672)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8673)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8674)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8675)
 <223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (8676)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8677)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8678)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8679)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8680)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8681)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8682)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8683)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8684)
<223> n equals a,t,g, or c
```

```

<220>
<221> SITE
<222> (8685)
<223> n equals a,t,g, or c

```

```
<220>
<221> SITE
<222> (8686)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (8687)
<223> n equals a,t,g, or c
```

<220>
 <221> SITE
 <222> (8688)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8689)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8690)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8691)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8692)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8693)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8694)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8695)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8696)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8697)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8698)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8699)
 <223> n equals a,t,g, or c

<220>

<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8725)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8726)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8727)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8728)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8729)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8730)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8731)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8732)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8733)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8734)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8735)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8736)
 <223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8737)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8738)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8739)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8740)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8741)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8742)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8743)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8744)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8745)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8746)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8747)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8748)
<223> n equals a,t,g, or c

0906003 09160
T 02160 " E8005660

<220>
<221> SITE
<222> (8749)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8750)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8751)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8752)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8753)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8754)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8755)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8756)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8757)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8758)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8759)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8760)
<223> n equals a,t,g, or c

<220>

09950063 091204
T02150" E20055650

<221> SITE
<222> (8761)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8762)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8763)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8764)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8765)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8766)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8767)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8768)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8769)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8770)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8771)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (8772)
<223> n equals a,t,g, or c

<220>
<221> SITE

<223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8786)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8787)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8788)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8789)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8790)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8791)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8792)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8793)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8794)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8795)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8796)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (8797)
 <223> n equals a,t,g, or c